Ranger Rick's nature magazine

March, 1967

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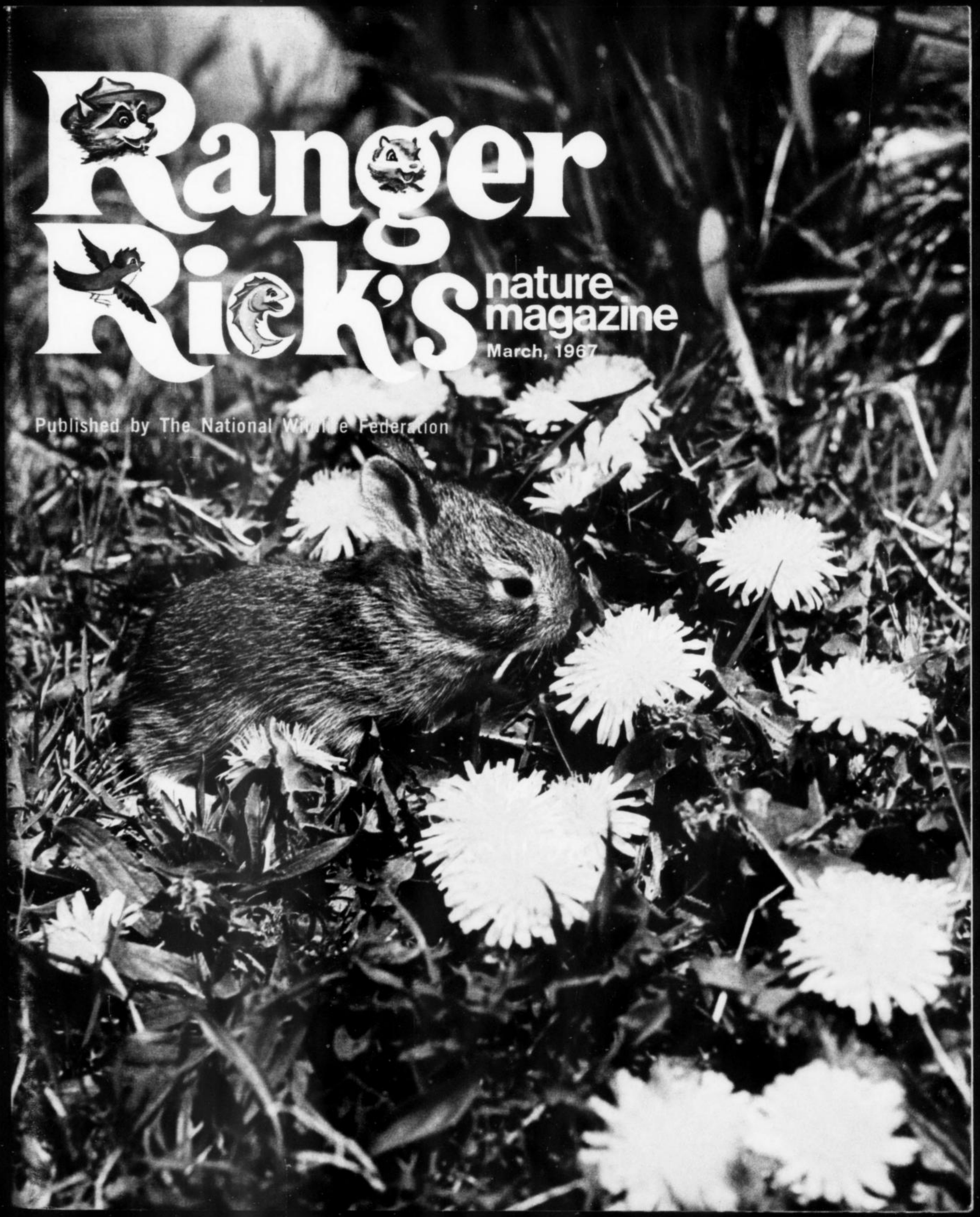

KING OF THE NEIGHBORHOOD

All winter we fed the fox squirrels under a tree just a few feet from our house. There were about six squirrels who were regular visitors. But the one in the picture was king, and he chased all the others away when he fed. I have watched him eat the germ from each kernel on a whole ear of corn at one or two feedings.

Whenever he got hungry, he would return to eat more of each kernel until at last he would get to the outside edge. The germ is near the point of the kernel where it is attached to the cob. Sometimes he carried the whole ear of corn off to his favorite tree.

Editor's note: You can read more about squirrels in "Mr. Shade Tail" on Page 44.

Animal Friends

Story and picture by Maynard Reece

OBJECTIVES: To give boys and girls a year-round program of activities, adventure and knowledge which will help them appreciate and enjoy nature. To help them know and respect all things that grow and creatures that move, that all may desire to conserve and wisely use the vital natural resources of the world.

March, 1967

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RACER

"Newly-born Antelope Blending with Soil" by Willis Peterson

OF THE PLAINS

by Byron W. Dalrymple

On the wide open western plains where yellow grass and gray sagebrush sweep to the treeless horizon, lives the handsome animal we call the "antelope."

Here the antelope can see for miles. It has eyes like telescopes and because it has no place to hide, its wonderful eyes can spot danger far away. These sharp eyes are its first protection, but its speed also keeps danger away.

This creature is the fastest runner of all our animals that have hooves and horns. The next time you are riding in a car, imagine a band of antelope racing alongside. They can keep up with the car at fifty miles an hour. Some can do it even at sixty. You have to drive faster than that to beat them.

When the antelope becomes uneasy or frightened, it starts to run and fluffs out large patches of white hair on its rump. This is a signal to others that danger may be near and that they had better run too. A band of racing antelope looks like big balls of cotton bouncing over the plains.

It seems as though they love just to run and race. They will race alongside a train or a cowboy on a galloping horse. They have raced with my car as I was driving along a ranch road on the plains. They draw closer and closer and finally dash across in front of the car and fly off over the sage. They probably are not racing just for fun. In this treeless country, disappearing into the distance is their way of leaving danger behind.

We shouldn't call these animals "antelope" because they really are not. The early settlers called them this because they looked much like true antelope from Africa and India that the pioneers had seen pictured in books.

Our "antelope" should be called "prong-horn" because of the prong on the side of each curling, black horn on the big buck. The little doe has horns too, but hers are very small. Though much like the ante-

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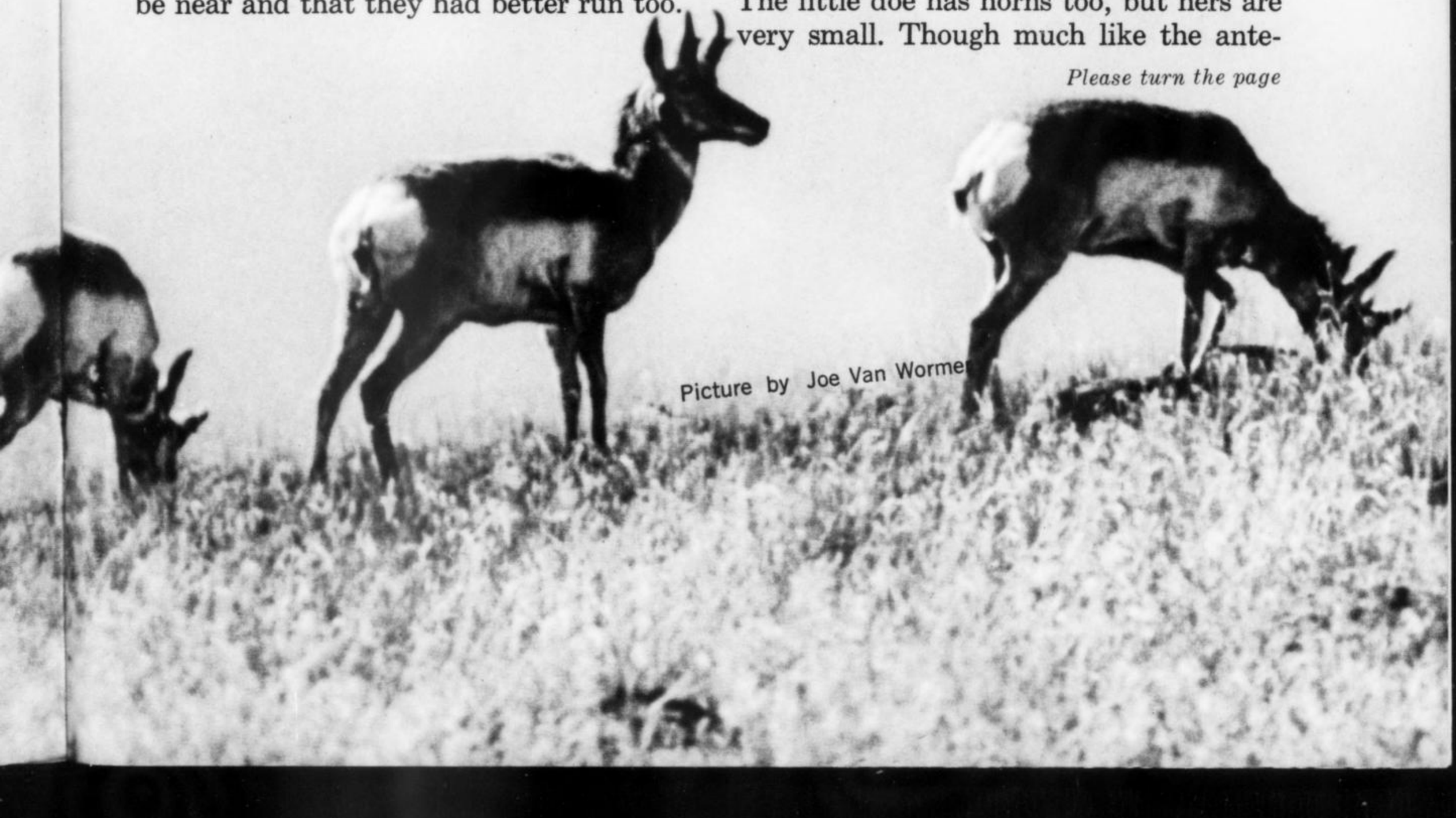

Picture by Joe Van Wormer

lope, this animal belongs to a family all its own. It is the only member. Nowhere in the whole world does the pronghorn have a close relative.

Curious Creature

In addition to seeing very sharply, it also is curious about *what* it sees. Any unusual sight not recognized as danger greatly excites its curiosity. Last fall I crawled through grass on the plains of New Mexico toward a band of pronghorns. They spotted me. They seemed to be wondering what this odd thing was. I waved my white handkerchief in the air while keeping myself low in the grass. The animals came toward me. With their ears cocked, they seemed curious, puzzled and unsure, until they were only a few yards away!

In pioneer days many people had to live on delicious "antelope" meat while they built their sod houses and tried to make farms on the treeless plains. Their guns did not shoot very far, so a hunter on horseback would ride toward a band, then turn and race along with it. As the pronghorns crossed in front, the horse slid to a stop, the hunter jumped off and fired his gun. The Indians often did this too.

Racers Can't Jump

During those early days there were pronghorns by the millions roaming the western plains. One could ride all day and not lose sight of the running, wheeling groups swirling over the grass and sage. But as more people settled and Army forts were built along the rivers, more food was needed. Tens of thousands of pronghorns were killed to supply food for the fast-growing population.

Next the settlers put up wire fences and turned the plains into farms. Each owner fenced in his own land. The pronghorns could not jump over the fences as deer did. They were used to running. They never had had to jump over anything in all their thousands of generations. So thousands of them struck the fences and were killed or got tangled in the wire. Others, fenced off from needed food and water, starved. Slowly, slowly the beautiful pronghorns disappeared until only a few were left.

When your parents and I were growing up, everyone who knew about the sad plight of the pronghorns said they would all be gone soon, perhaps forever. But just about that time a new study was begun that today we call "game management." Specialists studied the pronghorns, their needs for food and living space. They made laws to prohibit hunting them. Soon farmers, ranchers, tourists and hunters began to see that careful protection was necessary to save the pronghorn.

Pronghorns Return

With this support the pronghorns slowly began to appear again. The specialists kept a count of them by flying in planes over the racing herds. Soon they were delighted to find a few thousand more.

Today the handsome pronghorn is safe again. There are enough so that each fall, hunters can kill a limited number. You can see many as you drive across the plains on vacation with your family. If you visit a western ranch, maybe you can have a race with the pronghorns too. Careful management, the kind that ranchers use with their cattle, has brought the animal commonly called the "antelope" back to stay. THE END

Picture Courtesy U.S. Fish and Wildlife Service

Tree Swallow

House Wren

Blue Bird

Story and Pictures by Richard B. Fischer
Professor of Ornithology, Cornell University

LET'S BUILD A BIRDHOUSE

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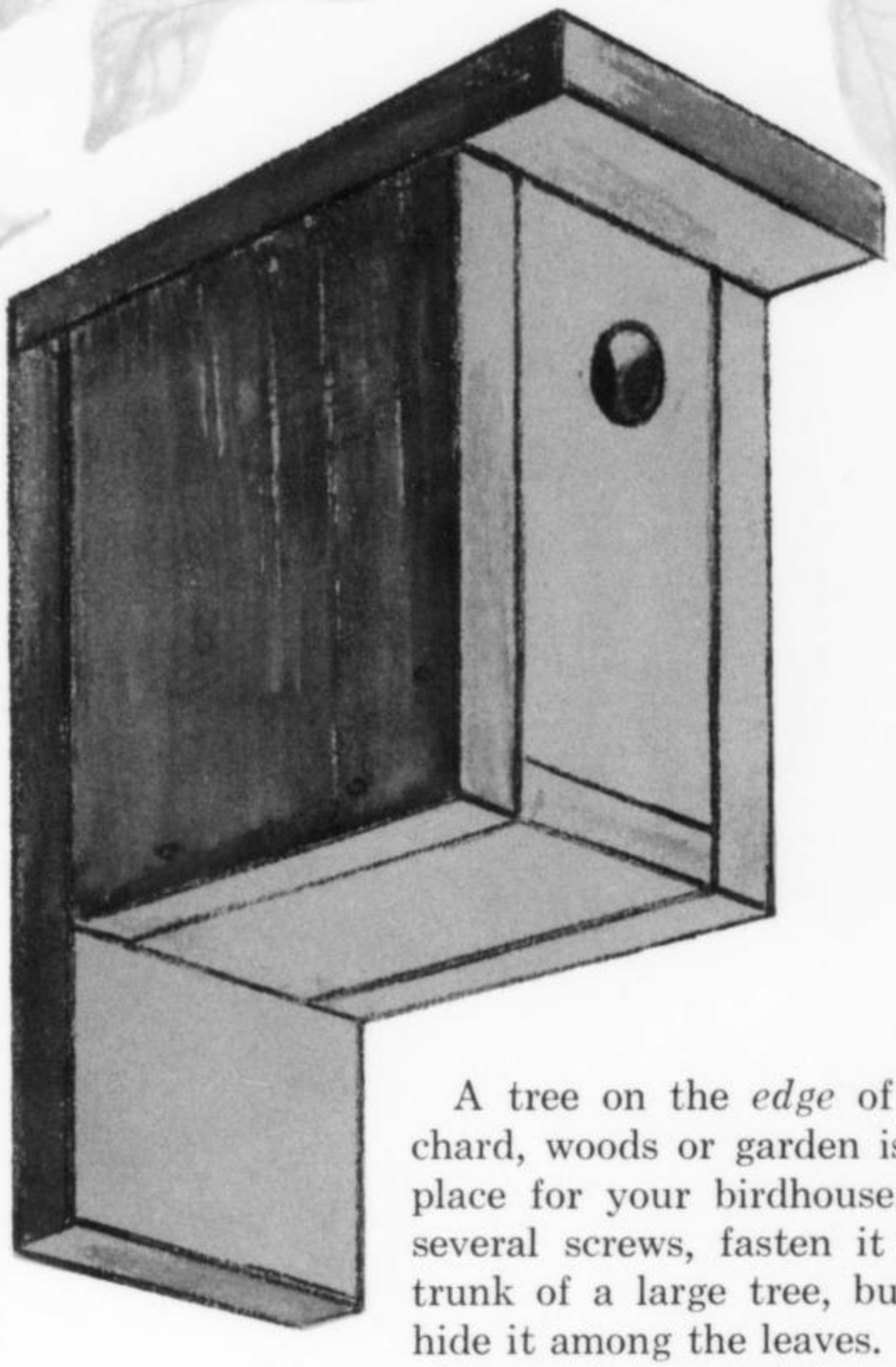


You can have more birds in your neighborhood this spring by putting up houses for them now before they start house hunting. Birds that make nests in old woodpecker holes are quick to accept a home you give them.

Wood is best for a birdhouse. Use waste pieces of lumber, or go to a lumberyard and buy an eight-foot length of 1″ x 6″ Number 2 pine board. Ask for a board with a two-inch-wide knot that is to one side of the middle so that when you make the entrance hole in the birdhouse, you have only to push out the knot with hammer and screwdriver. Thus you'll have a good doorway without bothering with special drills, keyhole saws and files.

Mark off the pieces with a pencil as we show in the sketch. Five cents' worth of Number 4 finishing nails will be all you'll need to fasten the pieces together, or use any small nails you already have. It is not good to put a perch on the front because that will give other birds a place to sit while they attack your birds. Put oil stain or green or brown paint on the house or leave it unpainted to look "rustic."

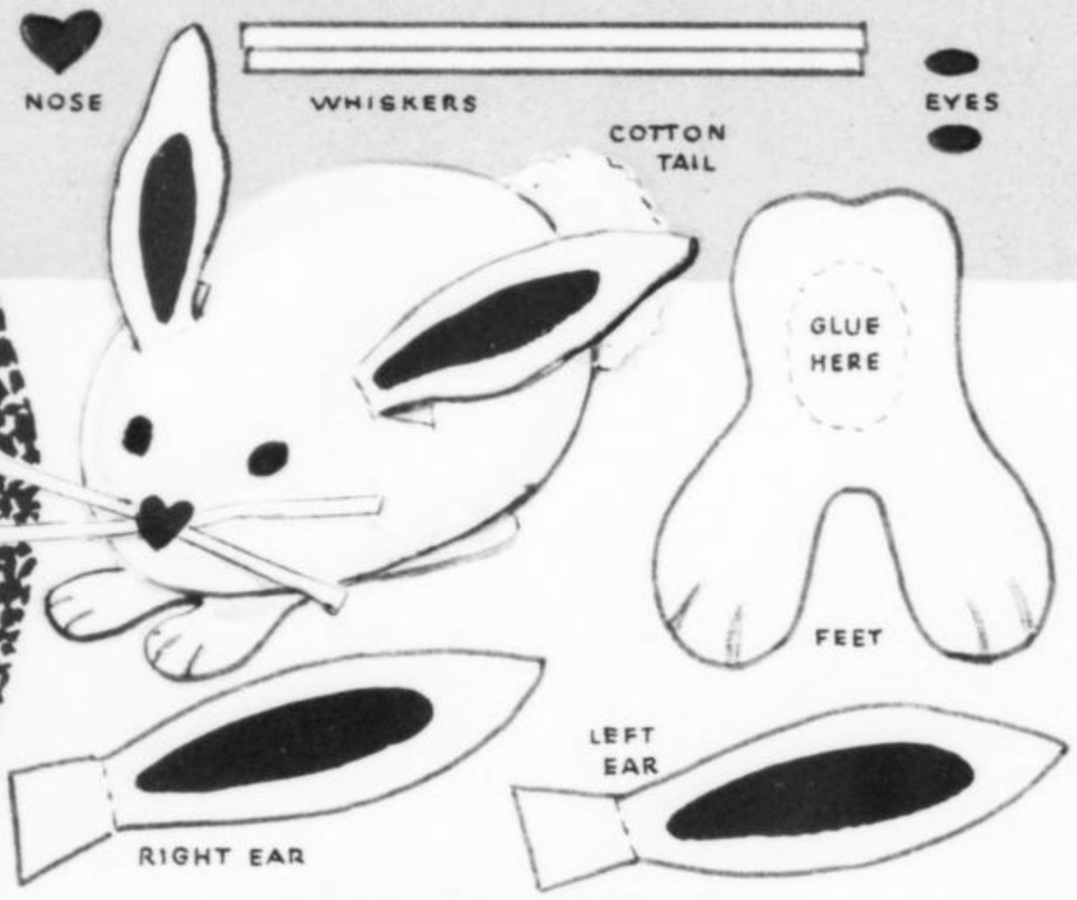
See how the front opens? That's done so you can look in once in a while to examine the nest. Birds do not like people near their homes, so look in when they are away. When you clean out old nests in the spring, notice all the different things the birds used to line the insides. How many trips do you suppose they made to find all that material? Hint: It takes one trip for each twig in a wren nest.

A tree on the *edge* of an orchard, woods or garden is a fine place for your birdhouse. With several screws, fasten it to the trunk of a large tree, but don't hide it among the leaves. A telephone pole or special post, near trees, is also good. Attach it ten feet above the ground and facing north so it gets some shade. If cats live nearby, hang the house from a branch with coat-hanger wire.

Who might use your birdhouse? Your guests are most likely to be the house wren, bluebird, tree swallow and chickadee. A big house with a three-inch entrance hole would attract the flicker, or the screech owl, or even a squirrel.

Your bird neighbors will reward you with their pretty songs, their bright feathers and their interesting ways. And they will help keep the insects in check. After your first guests move in, you'll want to put up more houses next year. Sound like fun? It surely is!

Art by Peggy Geiszel



BUNNY

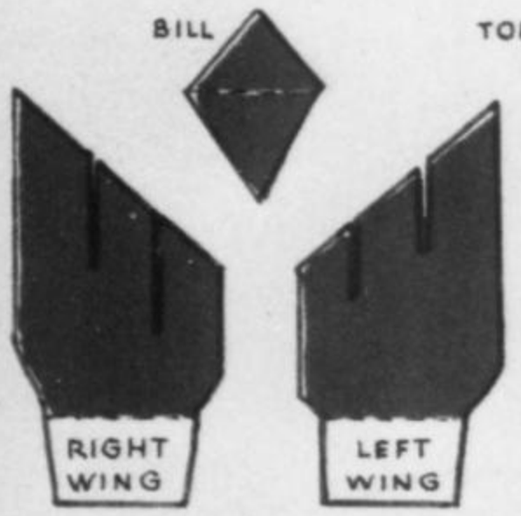
Trace ears on white paper. Cut out and color the insides pink. Fold back on dotted lines and glue on. Cut the two whisker strips, glue at center, add pink paper nose over them. Glue feet underneath and a puff of cotton as a tail. Eyes may be bits of tape, or can be painted on.

CHICK

Trace wing pieces and topknot. Cut from yellow paper, then fold back and glue on. Make the bill and feet of orange paper, and glue in place. Eyes may be of tape or use a marker. Tap the egg gently at the bottom end to flatten for better balance.

by Peggy Geisel

Use hard-boiled eggs and colored paper to make these amusing animals for the Easter table. Chicks may be dyed yellow, or you may use brown eggs. Rabbits may be dyed shades of pale color or you may use white eggs. Stand them all on shredded paper grass, or let them nestle in fluted, paper baking cups of a different color.



THE PYGMY OWL

by D. A. Hoover

Robin-size and grayish brown,
Lives deep in the woods,
Innocent and trusting soul,
Always doing good.

This pint-sized member of the owl family has a quality no other owl can hoot about. He's the only owl whose wings make a whistle as he flies. Unlike most owls, who fly at night, he can commonly be seen during the day, even in bright sunshine. His most active times, however, are in the half gloom of early dawn and just before darkness sets in.

Pygmy owls can be seen along our West Coast from southern Alaska to Mexico and from British Columbia to Arizona farther inland.

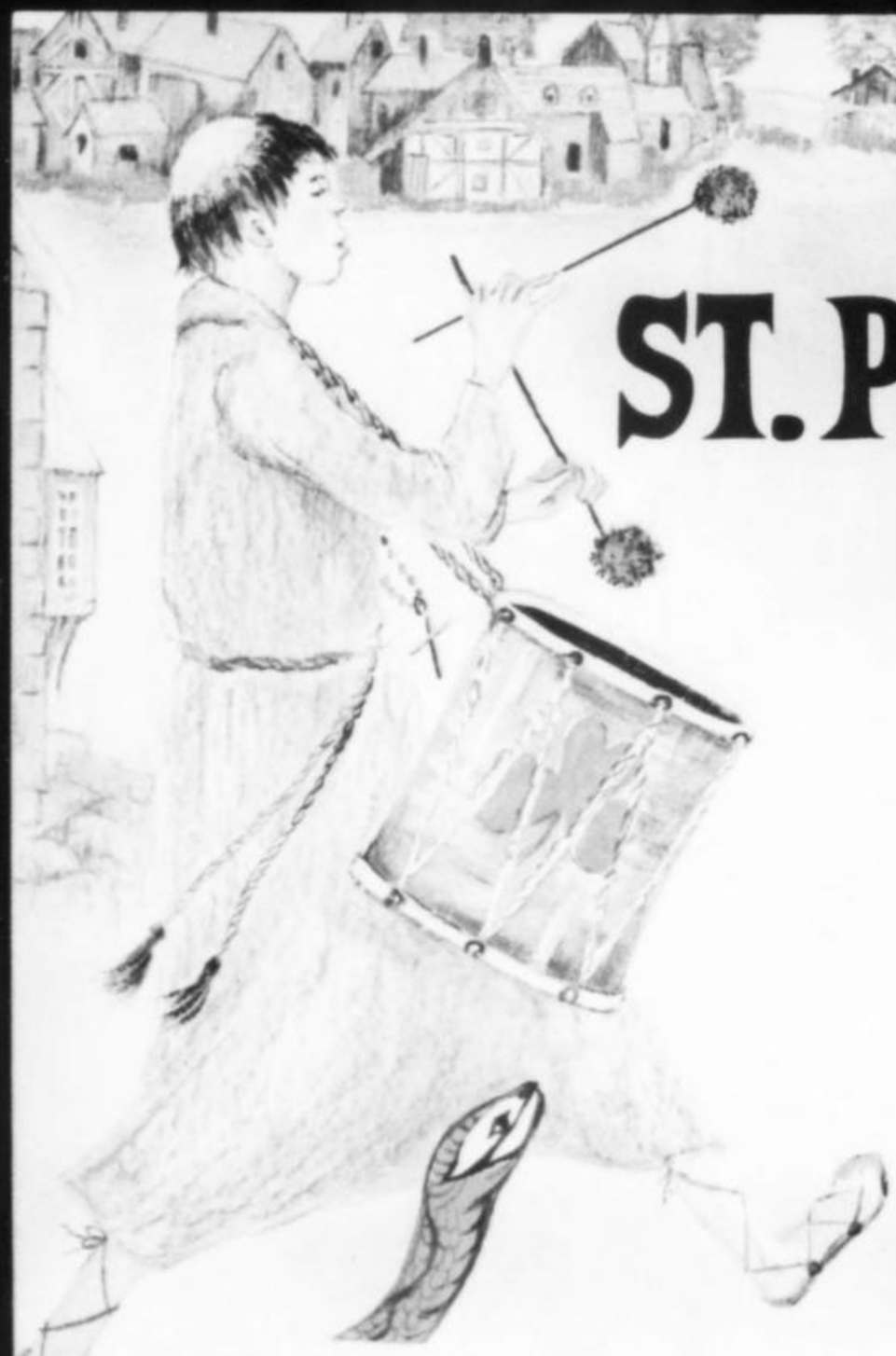
As this honest little handful of owl flies over his hunting grounds, he gives out with a call which sounds like "too-too-too-too-too-too-tok-too-took!" In this way the pygmy owl gives a warning to his prey; other owls hunt silently.

What he lacks in size is more than made up in salty courage. He will not hesitate an instant to pounce upon a rodent twice his size, falling with wings closed, like a missile from the sky. He rises with a rapid fluttering of wings, bearing his prize to the hungry nestlings.

His mate will be waiting on the nest, anywhere from eight feet high in an old stump to 75 feet up in a deserted woodpecker hole.

The Indians, afraid of very little, regarded the pygmy owl with wide-eyed reverence and superstition. They believed that terrible misfortune befell anybody who killed one of these little creatures. "Too-tok-too-took!"

Picture by Russ Kinne
Photo Researchers, Inc.



ST. PATRICK and the SNAKES

by Emilie Ladd

"The Wicklow Hills are very high,
And so's the Hill of Mouth, sir;
But there's a hill much higher still—
Higher than them both, sir.
'Twas on the top of this high hill
Saint Patrick preached the sarmint
That drove the frogs into the bogs
And bothered all the varmint."

This is one verse of an old Irish song which credits Saint Patrick with driving the snakes off the Emerald Isle. Down through the years there have been many legends about Saint Patrick, and most of them have something to do with nature.

One tale tells of a day when the Saint stopped to rest under a shady tree. He was planning to get rid of all the snakes in the land, but he was weary. He had just closed his eyes when he was bitten by a spider which he slapped away.

Again he closed his eyes, and again he was bitten, and again, and again. The Saint was angry and wondered if he would ever be allowed to rest in peace. Finally he fell into a deep sleep.

When he woke, he was very surprised to see a tiny brown snake warming itself in the sunshine at his feet.

Wondering why the snake hadn't heard that all reptiles were to be driven away, Saint Patrick questioned the little creature. The snake ignored him. Its sharp little tongue was busily darting in and out driving away the bugs that were foolish enough to get close to the priest.

Saint Patrick was so grateful that he turned the little snake from brown to green. "There," he said, "now you and all your kind are safe. Other birds and beasts cannot see you in the green grass. And as for man, surely no one would harm a little snake that is as green as Ireland itself nor one who spends its days adding to the peace of mankind."

Another legend has to do with the shamrock,

which is the national flower of Ireland. It is worn by all true Irishmen on Saint Patrick's Day, the 17th of March. According to the legend, Saint Patrick planted the shamrock because its three green leaves represented the Holy Trinity, which is a religious symbol. The shamrock is a member of the clover family and it grows all over Ireland today.

The best-known legend is also about Saint Patrick and the snakes. The story says that on the day he had promised to rid the land of snakes, he called the people together by beating on a big drum. He beat the drum so hard that the skin across the top of the drum broke.

The people were dismayed. What would happen now? There was supposed to be great magic in the Saint's drum, but now it was broken. Then suddenly an angel appeared and the drum was mended. Saint Patrick beat it once again and all the snakes vanished into the sea.

So the legends go, and it is quite true that even today there are no snakes in Ireland. We went to Dr. J. A. Peters, who is the curator in charge of the Division of Reptiles at the Smithsonian Institution in Washington, D.C., to find out what the scientific explanation would be for this. He explained that the following theory is believed by most herpetologists (her-pe-tol-o-gists are men who study reptiles):

The Emerald Isle rose out of the sea at a later time than other lands. Because it has never been joined to any other land masses, there is no way for snakes to get onto the island by migrating. This also is the reason why there are no snakes to be found on the islands of New Zealand or the Azores.

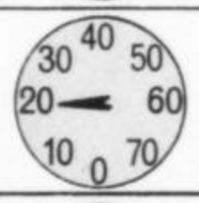
The question is, are these areas better off without snakes, except for the poisonous ones? Most snakes are very beneficial because they eat rodents around farms. This saves the farmer a great deal of damage to his crops and buildings. Mankind has failed to understand the need for snakes, and therefore has destroyed them in great numbers. The day may come when you can see many varieties of snakes only in a zoo or on a roadside snake farm.

Many conservationists feel that there is as much need for protection of snakes today as there was at one time for birds. Except for poisonous snakes living in populated areas, there is no reason ever to kill a snake, for it is really a friend to man.

THE END

Picture by Jack Weaver

Weathermen are called "Meteorologists" (MEE-tee-or-OL-o-jists). They use names for different kinds of winds as shown in this chart. You can also see what the wind can do at certain miles per hour.

Name of Wind	What it Does	Speed
Calm	Smoke goes straight up. Flags hang limp.	
Gentle Breeze	Leaves rustle. Flags fly.	
Moderate Wind	Small branches sway. Dust begins to blow.	
Fresh Wind	Small trees sway. Flags stand out.	
Strong Wind	Large branches sway. Umbrellas are hard to hold.	
Gale Wind	Twigs break off trees. Walking is difficult.	
Hurricane	Houses and property are destroyed.	75 and up

What do you know about the Wind?

by Sara B. Murphey

You feel the wind push. You hear it whisper, or whistle, or howl. You see what it does to flags, trees and clouds. But you do not see the wind itself. For wind is air—moving air.

The biggest ocean on earth is not water; it is the ocean of air that surrounds our planet. Without special protection we could no more live outside it than a fish can live out of water.

Our ocean of air is not only the breath of life for all of us, but it also shelters us from the full burning rays of the sun.

The Weight of Air

What keeps this ocean of air from floating off into space? The same thing that holds us on the earth—the pull of gravity. The pull of gravity gives weight to air. It also gives our bodies weight. When astronauts get far away from the earth's pull, they are weightless.

But what makes air move? What makes the wind blow? The weight of air is not always the same. It is made up of tiny invisible particles of gas. When the air is warm, the tiny particles spread away from one another. When air is cool, the particles come closer together. Warm air is light and does not press down heavily on the earth. Cool air is heavier and moves in to take the place of warm air. This movement of air is what we call the wind.

But why is some air warmer and some cooler? The sun warms all the air, of course. But the sun can heat land faster than it can heat water. The land, like a mirror, reflects its heat into the air. During the day the air above land is warmer and therefore lighter than it is above the seas and lakes. So by day the wind blows from the water to the land.

The opposite can happen at night because even though water heats more slowly under the sun's rays, it keeps its heat longer. At night the air over land becomes cooler and heavier. So the air moves from land toward water. Then we say, "The wind has changed its direction."

Helped by the sun, the wind is our weather-maker. It pushes rain clouds or snow clouds toward or away from where we live. There is water vapor in the air. This is water turned into gas. The wind carries the water vapor upward to form moist clouds. Sometimes the wind holds an area of high or low pressure above us by scarcely moving at all. Then we have the same kind of weather for several days.

Measuring Air

Meteorologists, or weather experts, use a BAROMETER to measure the weight of air. It tells when the weight—or pressure—of air is steady or is going up or down. The weather is usually clearing when the pressure is going up. Cloudy weather and rain come when the pressure is going down.

The speed of wind also tells how much and how fast the weather will change. The weather-men use an anemometer (an-e-MOM-e-ter) to measure the wind's speed. The anemometer is made up of cups on the ends of arms that are connected to a dial. The dial shows the speed in miles per hour. The wind pushes on the cups and makes the arms turn. The harder the wind blows, the faster the arms go around. The speed is then read on the dial.

You can make a simple ANEMOMETER without a speed dial. To "read" it, you count the number of turns it makes in thirty seconds. If you paint one of the cups a bright color, it is easy to count the turns. Of course, someone else

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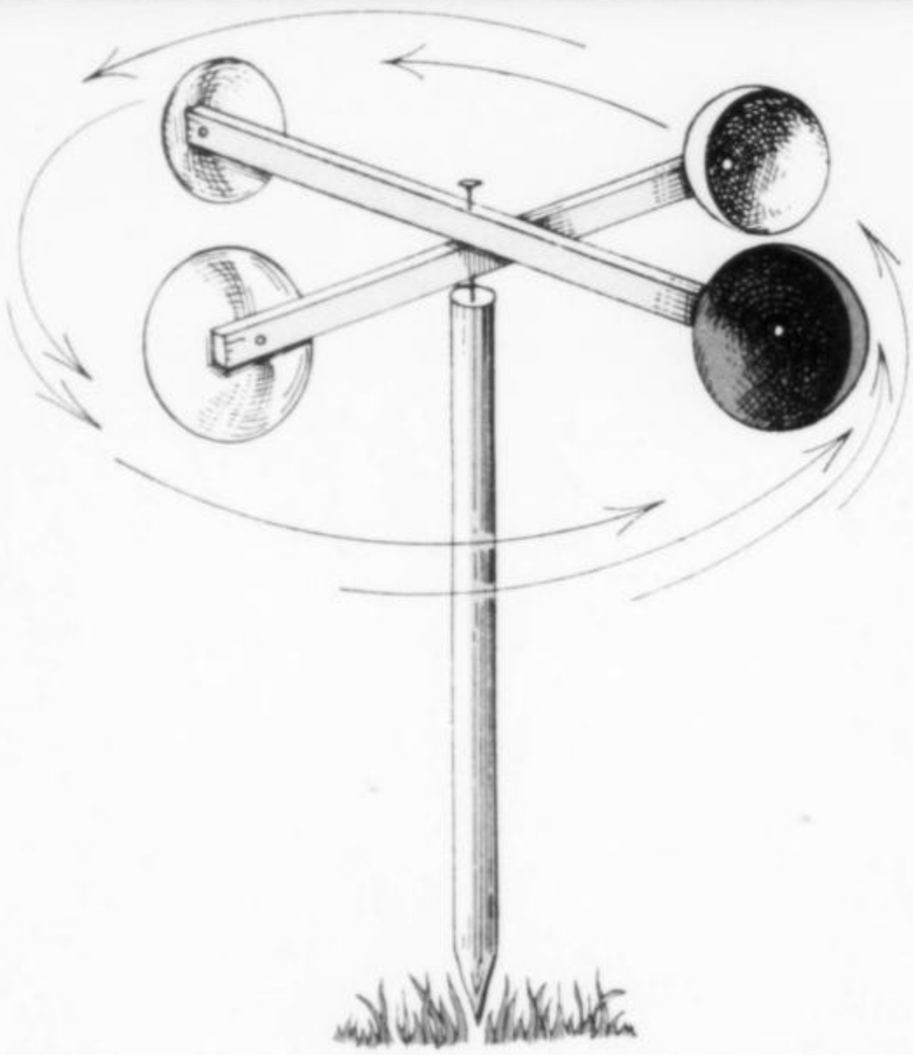


will have to keep track of the thirty seconds while you count. Then divide the number of turns by five and you will get a fairly true reading of the wind's speed in miles per hour.

To Make an Anemometer

You will need:

2 small hollow rubber balls cut in halves
2 sticks about ½″ thick, 1″ wide and 18″ long
A broomstick or a 1½″ dowel that is 4 or more feet long
A large nail about 4″ long, and 6 short nails
Paint, paraffin or paste wax

Nail the ball halves on the ends of the sticks. Find the center of the sticks and nail them together at right angles with a couple of short nails on each side of the center point. In one end of the dowel, drill a hole two inches deep and a little wider than the big nail. Wax the inside of the hole. Drive the big nail through the very center of the crossed sticks and set it in the hole. The dowel should be pointed at the lower end so that it can be put into the ground.

Measuring Air Pressure

You can measure air pressure by making this simple BAROMETER. It will help you see that air pressure changes. You will need a milk bottle, a balloon, a broom straw, a rubber band or cellophane tape, and a strip of cardboard.

Cut a circle of balloon rubber about two inches bigger than the bottle top. With the rubber band or tape, fasten it firmly over the top of the bottle. It should be flat, but not stretched. Glue one end of the broom straw to the center of the rubber cap. Draw a straight heavy line down the center of the cardboard as shown, but do not put the cross-marks on yet. Fold the strip of cardboard in half and stand it beside the bottle so the free end of the straw is near the center line but does not quite touch it.

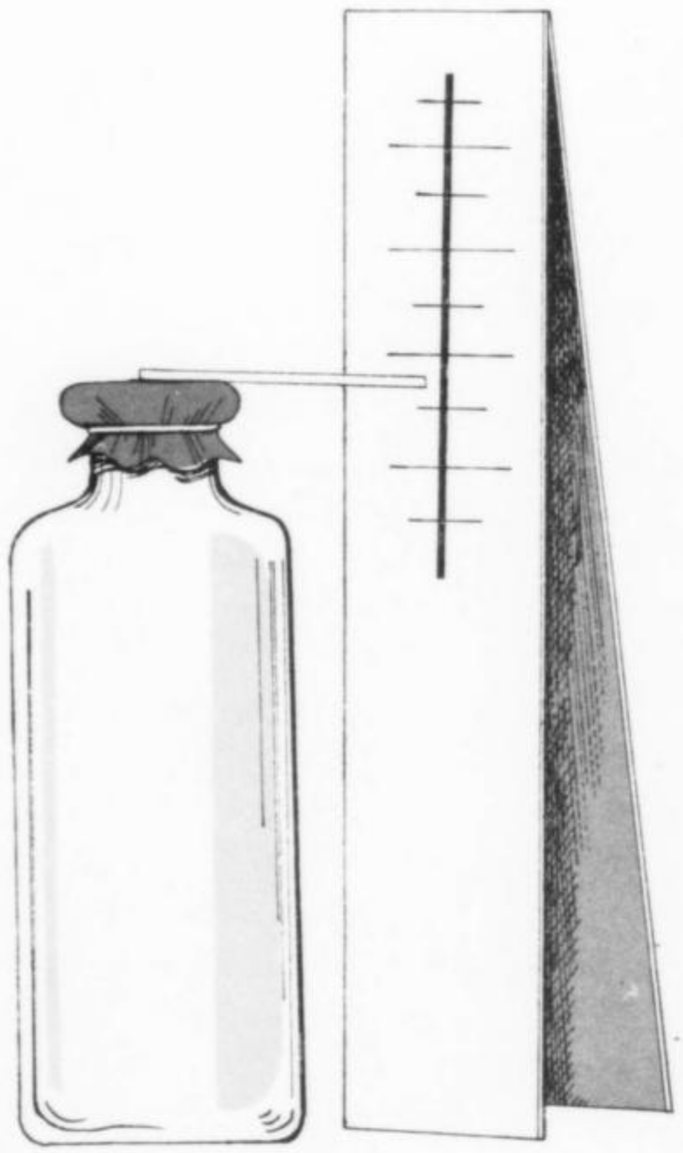
Choose a clear day and look for the air pressure in the weather report in your local newspaper. Note where the free end of the straw points on the heavy line on your cardboard scale. Make your first cross-mark at that point and write the air pressure beside it.

As the air pressure increases the rubber is pushed down and the end of the straw goes up. As your barometer straw changes position (look up the pressure readings in your newspaper) you will gradually add other numbers to your scale.

Keep your barometer in a place where the amount of warmth does not vary a great deal. Temperature has an effect on rubber. Changes from warm to cool would tend to make the air-pressure recordings less true.

THE END

Pictures by Jack Weaver



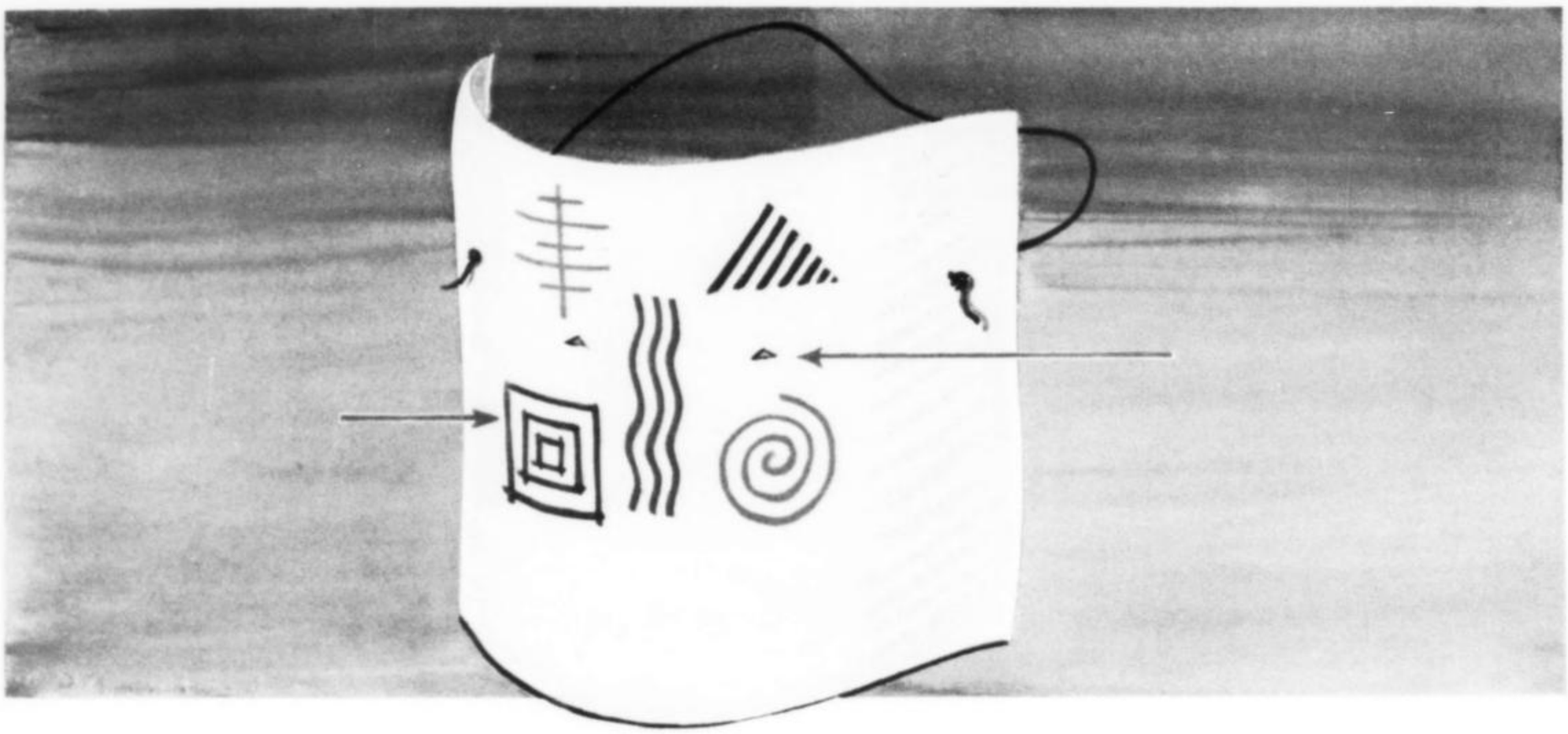
THE WORLD OF NATURE IN SPACE

by Lloyd E. Jones, Jr.
National Aeronautics
and Space Administration

Looking Back at Mother Earth

Let's do an experiment. It will show how we can understand our own world better by going into space.

Please turn the page



Take a plain piece of white paper or cardboard and cut two holes in it to see through. Make sure the holes are very small—about like the holes in notebook paper—and that they are the right distance apart for your own eyes. Now draw some patterns of squares, circles, triangles and curlicues around the eyeholes. (Look at Picture 1.) You may make up your own patterns, but make sure they have lots of lines and dots.

Take your mask to a mirror and hold the patterns up to it. Make sure the patterns face the mirror. Stand very close to the mirror and look through the eyeholes. What can you see? Probably only your own eyes.

Back away a few inches and look at your patterns. You will find they are very fuzzy and hard to make out. Can you see more than one without rolling your eyes around?

Now back away some more. You will find the patterns becoming clearer. The farther away you move, the more patterns you can see at one time without rolling your eyes.

This little experiment shows you that sometimes you have to stand away from something to really be able to see it. Watch a painter paint a picture. You will see that he stands very close to his picture when he is laying the paint on the canvas or paper. But when he wants to see how the *whole* picture looks, he stands well back from it.

We have never really understood our old Mother Earth completely because we are too close to her—right down on her surface in fact. Being so close, we have a hard time making out the patterns.

We know that we can find out much more about our fields, woods and rivers by taking pictures from airplanes.

For a long time pictures like these have helped forest and park rangers and weathermen to manage our natural treasures and to plan for tomorrow.

But airplane pictures are really taken too close to the ground—almost like being a few inches from that mirror. We need some way to take pictures far enough from earth so that we can see whole states and countries at a glance.

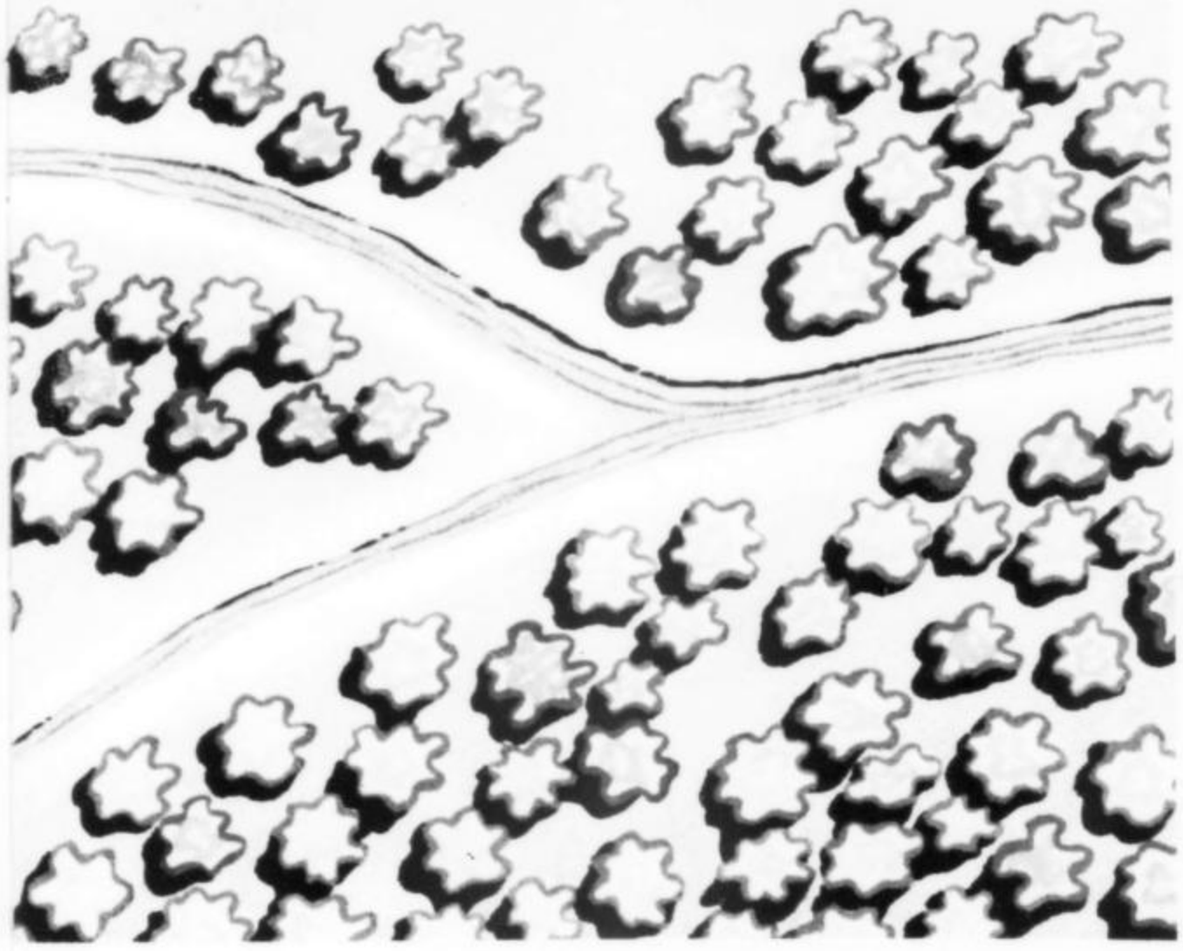
An airplane has another drawback. It can't carry enough fuel to stay up in the air for years or even months taking pictures of the same places over and over again.

What could we use that would be better than the airplane?

You have probably already guessed the answer—the satellite. This is a spacecraft that can go hundreds of miles high and may stay up for thousands of years. Of course, its picture-taking equipment would give out long before that—perhaps in two or three years. But in that time it could take hundreds of thousands of

Using special infrared film makes insect damaged trees stand out like a sore thumb!

Healthy trees appear red or pink



Pictures by Jim Reid

pictures from space.

Pictures from space can tell us much about the weather, the state of the ocean—its winds and its currents. They can tell us about our forests and fields. They can tell us how much water is in our streams. They can tell us new things about the way our mountains, deserts and river valleys are built. They can even pinpoint icebergs and, in spring, tells us when the ice is going to break up and leave our northern rivers. In fact, earth study from space is just beginning.

Today we are trying out in airplanes many kinds of instruments that we will later fly in satellites. By using special film in our cameras and by very special instruments such as radar, we can tell really amazing things about what is going on down on the earth's surface.

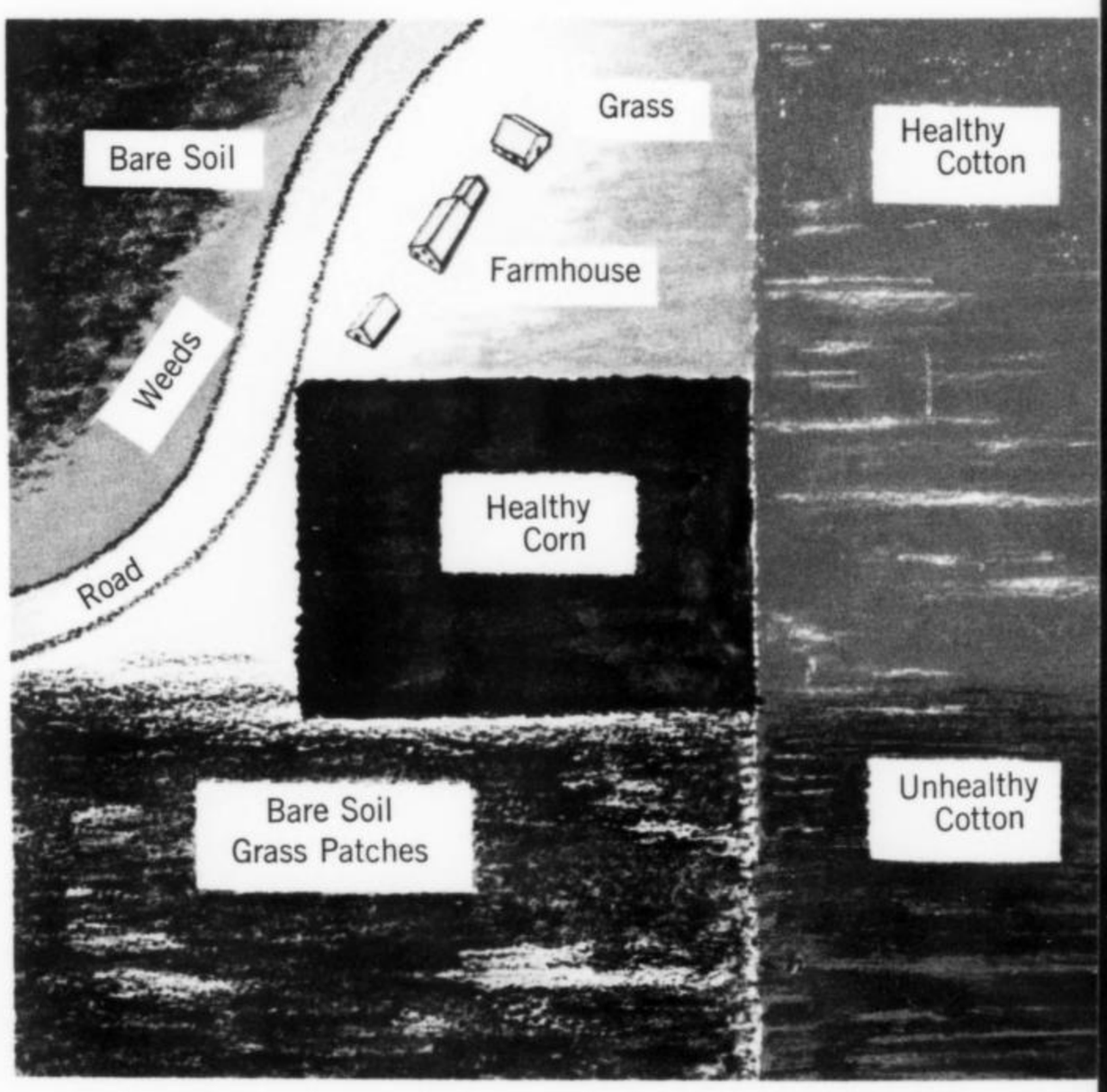
Let's look at some of these.

Did you know that each year insects and disease kill countless thousands of trees? This is bad for the trees, but it is worse for the country. We need to save our trees. They give us all our wood, but almost as important, they give us beautiful areas for play and vacation fun. But for our foresters to fight insects and disease, they have to know how many trees are in trouble and where they are. To look over thousands of square miles of trees from the ground is slow work. Here satellite pictures will help. Using a special film, satellite cameras will be able to tell sick trees from healthy ones. To the camera's eye, the damaged trees will show a different color. (See Picture 2.) The satellite could check all the trees in a country like Canada, the United States or Mexico and do it in a few days or weeks. It won't be long before we will do this.

In the same way we can study the farmer's fields. Again with a special film, the camera can tell the kind of crop and whether it is healthy or not. (Look at Picture 3.) Thus working with farmers, scientists will make our crops better and keep our fields in good condition. This can be done for all countries and will help poor people all around the world.

What is the greatest single resource on earth—and one of those that makes life possible? The answer is—water.

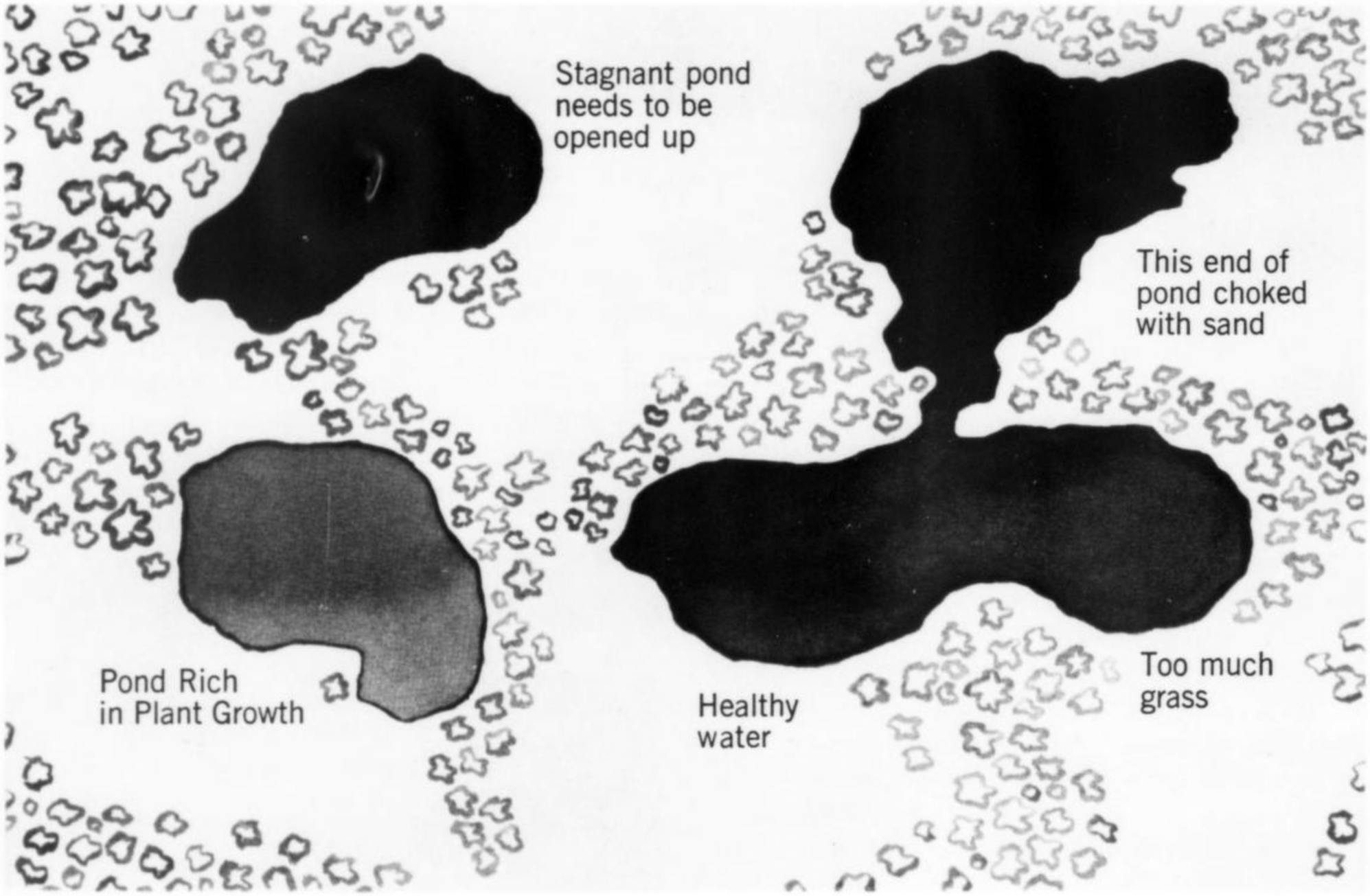
Please turn the page



One of the things that satellite pictures can do for us is to help us understand our rivers, our lakes and oceans. Color pictures of lakes can tell us on which ones we need to work to get rid of undergrowth, dirt, sand or harmful substances in the water. (Look at Picture 4.)

Satellite pictures will be able to help us find the patterns of flow where factories and cities are pouring dirty matter into our lakes and rivers. Then we can get to work and clean up some of this mess. (See Picture 5.) This is becoming more of a problem to our country as our sources of water get dirtier every year. In fact, to get and keep clean water is one of the biggest problems America faces today.

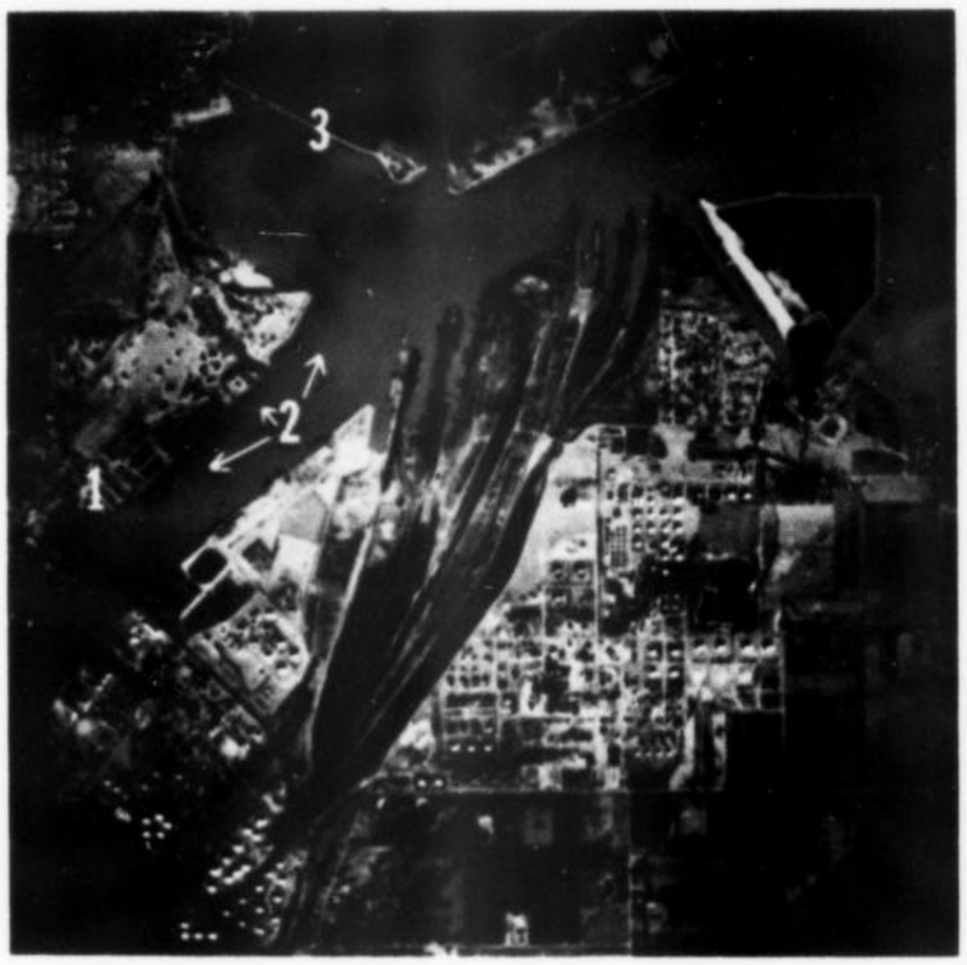
Satellite pictures will help find new sources of pure water. By taking color pictures on special film, we can find springs even when they are underwater. This is possible because the water is cooler than the land and water around it.


Stagnant pond needs to be opened up
This end of pond choked with sand
Too much grass
Healthy water
Pond Rich in Plant Growth

The biggest and richest of all natural treasures are our oceans. It has always been hard to understand ocean winds, current flows, and the deep and shallow areas because oceans are so wide and deep. They are swept by storms and crossed by powerful currents. Parts are dotted with icebergs and covered with icecaps. Even the behavior of living creatures in the oceans is not well understood today.

Why is it important to understand the oceans? Remember, not only are oceans the highways for world trade but they are also a rich source of food for the world's billions of people.

Scientists who study the oceans are very excited about the possibilities of satellite pictures of the ocean. The Gemini flights have already given us hundreds of beautiful color pictures telling us more about ocean depths, currents and wave patterns than man has ever known. (See Picture 6.) From these pictures, believe it or not, fishermen can even tell the best places to cast their nets.



Picture 5

The picture at the left is an infrared color photograph of the mouth of the Maumee River at Lake Erie. It shows where dirty matter is poured into the water (2) from a sewage disposal plant (1). The breakwater (3) does not let the water circulate into the lake. This causes pollution. The picture below shows an actual map of the same area.

A rich tomorrow will be ours if we can better understand our Mother Earth and be intelligent about what we do with her. She is the only home we have.

THE END

Picture 6

HONKERS AND HUMMERS HEAD NORTH

Courtesy U.S. Fish and Wildlife Service

by Will Barker

Some animals spend all their lives in one small area, but many birds travel widely and change their homes with ease. When the warmer days of spring are near, millions of birds start their journey north from their winter homes. These long flights from north to south and back again at regular times of the year are called migrations.

There are four main flyways along which birds travel in North America, just as people travel on highways. They are the Atlantic flyway, the Mississippi flyway, the Central flyway, and the Pacific flyway. Smaller flyways join these main ones. In this story we are going to talk about two of the birds that use the Atlantic and Pacific flyways. Next fall we will do another story about birds that use the other two flyways. On the two pages following this story you will find a beautiful map of the Atlantic and Pacific flyways and pictures of some of the other birds that use them for their migrations.

Not even scientists know all the answers to why birds migrate or why they go when they do. Many people believe that it is mostly because snow and ice make it hard for them to find food. But the mystery of what makes them leave *when* they do is still unsolved. The length of the day seems to have some bearing on the time they migrate. Some scientists have found the effect of sunlight may help to create the urge to travel.

The Canada Goose

Now that spring is coming, listen at dusk and you may hear a strange honking sound. It is the call of the Canada geese as they fly northward to their summer breeding and nesting areas.

Some fly by day, but whether it's light or dark, they fly in large V-shaped flocks called "skeins," just like the picture at the top of the page. Sometimes if the flock is a large one, the skein takes the form of a W.

Each flock has an older bird as its leader. The leader is often relieved by other birds who take their turn at the front of the skein. The speed at which Canada geese fly has been timed by an airplane speedometer at 60 miles an hour. Another pilot recorded 80 miles an hour.

A Canada goose hatched and reared in the eastern part of North America always uses the Atlantic flyway. Some pause to rest and feed at such refuges as Blackwater in Maryland, Bombay Hook in Delaware, and Parker River in Massachusetts.

Others break away from the flight and stop on privately owned lands. They finally reach Canada

in April where most of the geese stay along the eastern shore of Hudson Bay for the summer.

The western-reared geese use the Pacific flyway. Some stop to rest and feed in areas such as Malheur National Wildlife Refuge in Oregon, Tule Lake and Lower Klamath National Wildlife Refuges in Oregon and California and the Salton Sea Refuge in California.

A goose may fly back and forth for nine seasons. This is the usual life span of a goose.

The Canada geese stay in the north until the first cold weather warns them that winter is on its way. Some take off at this first hint of winter. Others linger until it is really cold. Finally all the geese return south to spend the winter. Some will fly to Mattamuskeet, which is a National Wildlife Refuge in North Carolina. There are often forty to fifty thousand birds there. All day long there is a steady babble of geese voices. They sound like a pack of hounds barking.

Other geese will winter on the Chesapeake Bay or go to Santee National Wildlife Refuge in South Carolina.

Picture by Ron Austing

The Hummingbird

Do you know what bird can fly backward as well as forward and even hover in the air above a flower? This same bird is the smallest long-distance traveler in North America.

It is the ruby-throated hummingbird. It has glistening green feathers and is no longer than 3½ inches. Even though they are called ruby-throated, only the male has a red throat patch.

Like the Canada goose, the ruby-throated hummingbirds also migrate north for the summer. They travel all the way from Guatemala and Panama, more than 500 miles, without stopping to rest. They cross the Gulf of Mexico flying just above the waves. Their tiny wings beat 55 to 75 times a second and as they skim along, their wings make a low buzzing or humming sound. That's why they are called "hummers."

The male hummers fly north each spring before the females. Each male then chooses his own territory. He guards it by making harsh squeaks which drive away other hummers and many other birds much larger than he.

When the female arrives, she starts to build a nest like a tiny cup about 1½ inches across—not much bigger than your thumb. The nest is made of vegetable down, plant fibers and spider webs and is built on a small branch ten to twenty feet above the ground.

The male helps her guard the two tiny white eggs she lays and later the young, when they hatch.

You generally see hummers wherever flowers grow, especially near the jewelweed. The hummer eats many tiny insects, as well as spiders. It drinks nectar, sap and sugar water.

In the fall the male leaves for the south again before the female and the young. When flying both north and south they use the Atlantic flyway. All other hummingbirds in North America are western species—the rufous, the black-chinned, and the buff-bellied hummingbirds. These use the Pacific flyway. Some western hummers make short migrations and others travel great distances.

Each year the arrival of the honker and the hummer announces spring—the season when our continent wakes up from its long winter nap.

Please turn the page

Black-bellied plover

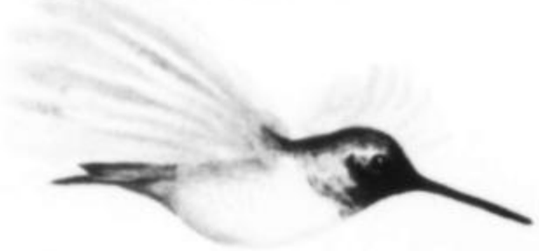
CANADA

UNITED

PACIFIC
FLYWAY

Rufous hummer

Buff-bellied hummer



Black-chinned hummer

Snow goose

A

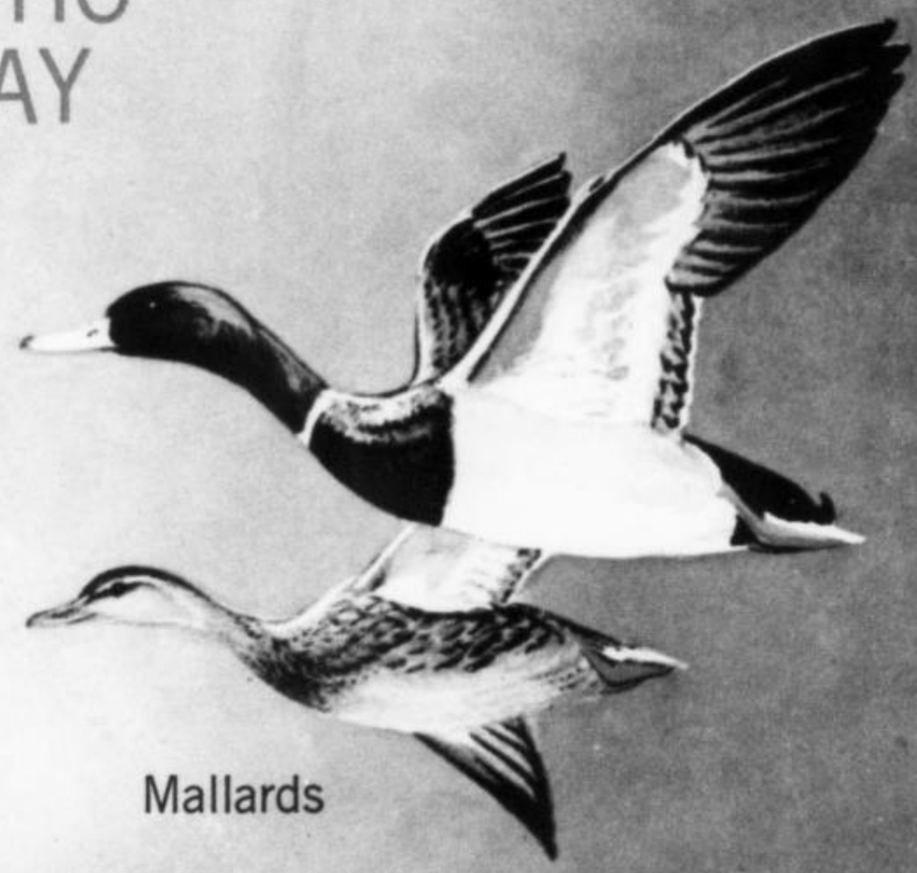
D

STATES

ATLANTIC
FLYWAY

Peregrine falcon

Blackburnian warbler



Mallards

Bob Hines

Ranger Rick And His Friends

ADVENTURE III The Big Flood

by J. A. Brownridge

All day the rain poured down and it kept on after dark. Even Rick Raccoon, who liked to roam the woods at night, stayed in his home in Hollow Oak.

It was snug and dry there, but Rick could not sleep. He kept thinking of the bare, burned-off hill above Clear Creek. Last summer a careless camper had started a fire near the creek bank. Before it was brought under control, a whole hillside of trees and bushes was destroyed. There would be no limbs or branches or twigs to break the heavy downpour of rain; no roots to hold the water where it fell.

"If only people had planted new trees and shrubs on the hillside right after the fire," thought Rick. "But I guess they were busy with other things and thought they'd wait until next year."

But Rick knew that rains don't wait. And this long, heavy rainfall could start a flood. As the night turned to gray morning, Rick remembered that Ranger Tom had promised to store some bags for sand at the Deep Green Wood Ranger Headquarters where he and his friends kept shovels and fire-fighting equipment.

He hurried to headquarters, hoping Ranger Tom had not forgotten his promise. Sure enough, there were the bags. Rick hardly had time to heave a sigh of relief when Billy Beaver came in puffing.

"Rick," he gasped, "you'd better come quickly. Clear Creek is rising fast. I'm afraid we're going to have a flood!"

"Sound the Ranger's alarm, Bill. I'll run ahead to see what can be done. Get everyone to bring some bags and a shovel!" Rick took a shovel and all the bags he could carry and raced away.

Billy Beaver grabbed the hammer and pounded on the Ranger alarm to summon all the animals to headquarters to fight another danger to their homes.

As soon as Rick got to Clear Creek he saw where the trouble had started. The rain was pouring down the burned-off

Pictures by Lorin Thompson

hillside in torrents. It was carrying with it precious topsoil, rocks, dead tree trunks and all kinds of trash and dumping it into a muddy, messy, swollen stream.

Clear Creek had angry waves licking at its lowest banks as if annoyed by all this dirt being dumped into its usually quiet, clean bed. At any moment it would spill over into the low woods beyond the hill. Some of the animal homes would be flooded and perhaps lives would be lost.

There was not a moment to spare. Rick grabbed his shovel and started filling bags with sand. The other Rangers came rushing to his side. Rick gave orders:

"Ollie, you and Davey help fill these sandbags and load them on Terry's back.

"Terry, you carry the sandbags over to me and we'll try to build a dike to hold the water back."

All the animals worked furiously to hold back the rising tide. But still the muddy water rose and threatened to break through at a different place.

Quickly Ranger Rick assigned another group to fight the new threat. Then suddenly . . . tragedy.

Sammy Squirrel was struggling to pull a sandbag into place and didn't notice that the fast-flowing water had worn away part of the stream bank. The edge of the bank was ready to cave in under the slightest weight.

Down went Sammy into the angry, swishing water. Down, down he went until he was sure he'd never come up.

Please turn the page

"Help, Rick!" shouted Davey Deer, who had been working with Sammy. All the animals left their work and watched with terror as Sammy struggled in the flood. Frantically he grabbed a branch floating by and pulled himself up. But the water was rough and wild and it was like riding a bucking bronco. Sammy surely would drown if help didn't reach him quickly.

"Ollie Otter, you and Billy Beaver run as fast as you can to the big bend in the creek," ordered Rick. "The water slows down a little there and maybe you can swim out and get him. I'll try to reach him at the stone bridge."

Off they all raced. Ollie and Billy took a shortcut through the woods to the big bend. Rick rushed down to Stone Bridge. Out to the middle of the bridge he went where the roar of rushing water almost deafened him. He leaned far out as Sammy swept closer. Sammy reached for Rick's paw . . . but missed. Under the bridge he went. The other animals on the bank moaned.

"No time for that," snapped Rick. "Hurry to big bend in case Ollie and Billy need help."

Downstream they saw their two brave friends leap into the rushing creek and fight their way out to where Sammy's tree branch would be coming. Suddenly there it was. Both animals grabbed for it . . . and caught it. Now came the desperate swim back to shore.

"Hurray!" shouted all the animals. "They've got him."

"He's not out yet," warned Rick.

"Rudy Duck, you take the end of this rope out and drop it to Sammy. He can hold it and we'll all help pull them in."

Away Rudy flew with the end of the rope in his bill. He swooped down and dropped it right on target. Then everyone pulled with all his might until Sammy was close enough to leap onto solid ground.

There he crouched, wet and shivering and still frightened by his narrow escape.

"Th-th-thanks," he stuttered through chattering teeth.

"Nurse Zelda Possum, you take Sammy home and get him warm and dry," said Rick. "The rest of you go back to work. But be careful!"

On they struggled through a long, long day filling sandbags and piling them up. At last the clouds began to roll away. A rosy sunset showed through and the rain stopped. Soon the river stopped rising. Another battle to save their homes had been won.

Wearily they returned to Ranger headquarters.

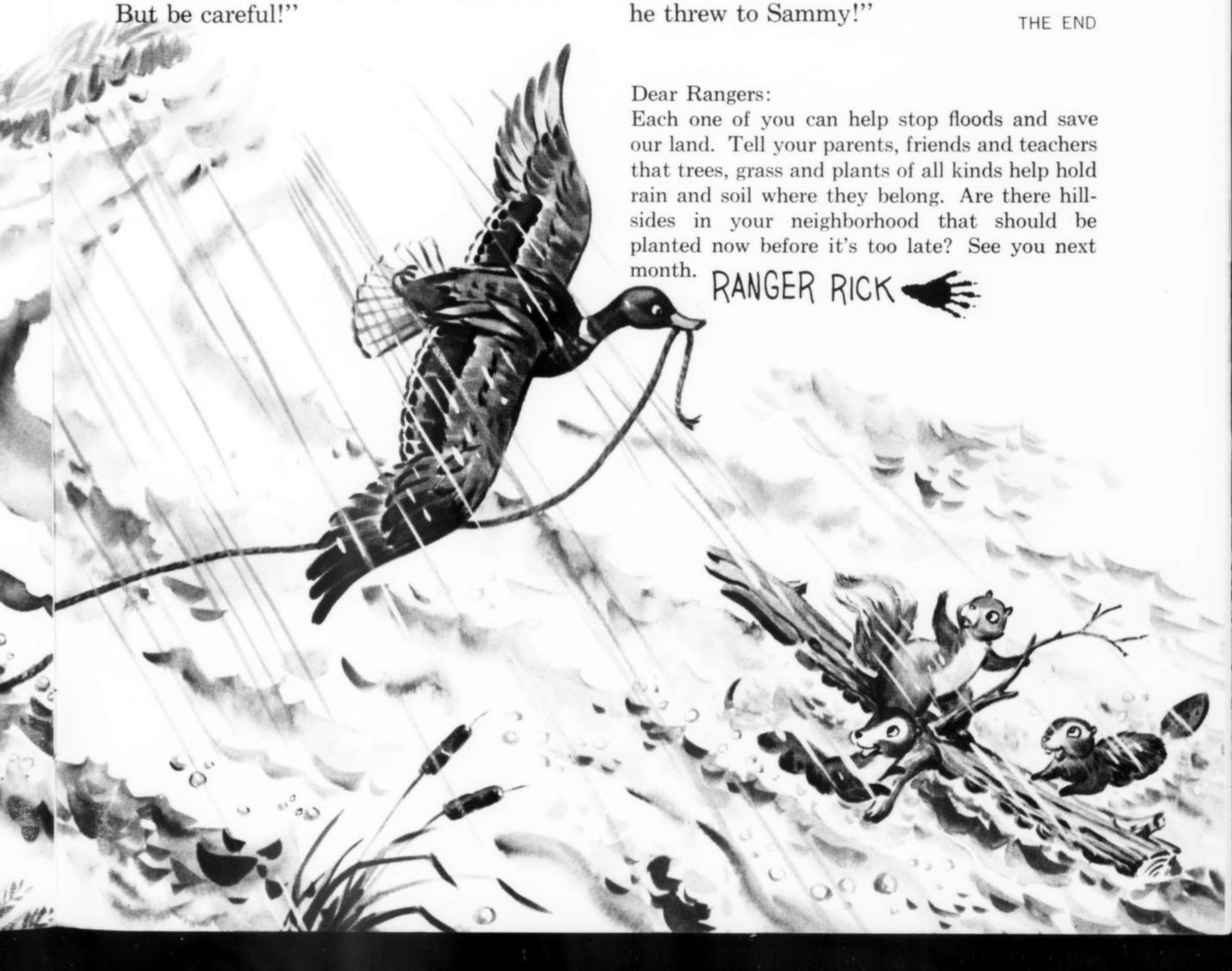
"You're all heroes," said Rick. "But to Ollie and Billy we must give our biggest hero medal for saving Sammy."

Ollie chuckled. "Rudy Duck should get a special medal for marksmanship. He sure was right on target with that rope he threw to Sammy!"

THE END

Dear Rangers:
Each one of you can help stop floods and save our land. Tell your parents, friends and teachers that trees, grass and plants of all kinds help hold rain and soil where they belong. Are there hillsides in your neighborhood that should be planted now before it's too late? See you next month.

RANGER RICK



first wildflowers of spring

by Norman and Peggy Fisher

Picture by Ruth Fagen

Are there any wildflowers blooming this early in the year? You can bet your fur-lined boots there are. If you don't already know about them, here is how you can begin to learn.

Not all of them may grow where you live, so first take a good look at these pictures and the map showing where each flower grows then read about each kind of plant.

Then put on those warm boots—if you still need them—and you can start to hunt for the flowers near your homes. You may want to take this magazine along with you.

In the country you should be able to locate several of these flowers now or within the next few weeks. Check any marshy spots or streams for skunk cabbage (see the February issue of Ranger Rick's Nature Magazine). You may also find marshmarigold. A nearby woods may have some of the others. Along the roadside look for the bright yellow of the coltsfoot.

If you live in a big city, don't feel discouraged just because you don't have a marsh or a woods near you. Even in New York City, chickweed has been found growing in sidewalk cracks and coltsfoot flowers spring up in vacant lots.

Almost everywhere you are sure to see other kinds of plants than those mentioned here. It's fun to learn something about them too. People used to think hepatica plants could cure liver diseases or that pepperroot roots really do taste peppery. Your school or public library has books to teach you about these and many others.

Many of the wildflowers which you now see in the United States did not grow here before the first settlers came to this country. Sometimes people brought them in deliberately because they were pretty, like moss roses, or because they had a pleasant flavor, like spearmint. Sometimes they came in accidentally when their seeds happened to get into a cargo of grain or other seeds.

The more you learn about wildflowers, the more you will enjoy them. So that others may enjoy them too, you should learn which kinds are becoming scarce in your neighborhood. These should never be picked or uprooted. A good rule is: Do not pick wildflowers—whether they are scarce or not—unless many blossoms are growing nearby to make seed for future plants.

1. Chickweed

Chickweed flowers are usually quite small so look carefully. This one is only one eighth of an inch across. Even a big one would be only one third of an inch. Chickens like to eat the whole plant, and that is how it got its name. The little white flowers like the climate of our Northern states so much that they come out during every month of the year. Watch for them growing out of cracks in sidewalks, along the foundation of your house or apartment, in meadows and in paths or roadways which aren't used very much.

Picture by Norman C. Fisher

2. Dutchman's-Breeches

Dutchman's-breeches flowers resemble the style of trousers worn by boys in Holland some years ago. These flower "pants" hang upside down, as if they are hanging out on the line to dry after washing. There is a sweet nectar inside them which insects like. Some insects such as bees and beetles don't have tongues long enough to reach all the way down a "leg" of the flower to get the nectar. That is why you will find small holes in the sides of the flowers after they have been in bloom a few days. Look for them in rich woodlands where the soil is deep around March and April.

Picture by Ruth Fagen

3. Troutlily

Some people call this flower the dogtooth violet. Others prefer the name troutlily because the plant belongs to the lily family and is not related to the violets. Its leaves have speckles and spots on them like the sides of a trout fish. Most of them have yellow or white flowers. They like to grow in swampy places or along brooks in a moist woods. If you live near such a place, you have a good chance of finding troutlilies in almost any state from the West Coast to the East. In Florida you can start looking right now. If you live farther north, you can watch for them in late March and through April and May. Troutlilies take several years to produce a flower from the time the seed starts growing. Picture by Norman C. Fisher

Please turn the page

4.

5.

6.

7.

4. California Poppy

There are several kinds of poppies, but the best known in Western states is this California poppy or "cup of gold." It is also the state flower and grows wild in the valleys and foothills of the West. It covers large areas with orange-golden flowers which open up during the day. Poppies can also be grown in your garden from store-bought seeds, but then the color of the blossoms may be pink, cream or white.

Picture by C. G. Maxwell
Photo Researchers, Inc.

5. Trailing Arbutus

This is the state flower of Massachusetts. The plant has woody stems which may trail over the ground as far as fifteen feet. The leaves often have rusty-looking spots on them. If you find the flower, you will smell one of the sweetest fragrances you will ever know. Look for them in evergreen woodlands, sandy places and sometimes in pastures.

Picture by Norman C. Fisher

6. Coltsfoot

Keep your eyes open for coltsfoot flowers in March. Your friends might think that they are dandelions like the ones on the front cover, but you can explain that coltsfoot never has any leaves until after the flowers have finished blooming. Dandelions always have leaves growing right on the ground underneath the flowers. The best places to find coltsfoot are along roadsides or railroad tracks. If this makes you think that seeds of plants are sometimes carried and spread by trucks or trains, you are both smart and correct.

Picture by Norman C. Fisher

7. Marsh Marigold

Look in wet meadows or along streams for this one. It grows in Alaska, across Canada and into all of the New England states, and south as far as a line between Nebraska and South Carolina. In the Carolinas you might find some marsh marigolds right now if you have had a few warm days recently, and you will certainly see them by the end of March. Way up north they may not bloom until May or June. Marsh marigold flowers don't have any petals. The bright yellow parts which look like petals are really "sepals," but they work just as well as petals in helping to attract insects to the flowers. The insects are important because they carry pollen from one flower to another. The pollen causes the flowers to start making seeds.

Picture by Ruth Fagen

WHO GOES HERE?

by Peggy Geisel

Find out follow the dots

Ollie Otter's FUN and GAMES

CHUCKLES

SMALL FRY: Have you ever seen a catfish?
BIG GUY: Why, of course!
SMALL FRY: How did he hold his pole?

* * *

BILL: What would you do if you met a bear?
WILL: Climb a tree.
BILL: Bears can climb trees.
WILL: Not this tree. It would be shaking too much!

* * *

4-H GIRL: I'm going to name my pig "Ink."
CUB SCOUT: How come? It isn't black.
4-H GIRL: No. But it's always running out of the pen!

* * *

There was a young man from the city,
Who saw a black and white kitty.
Beside her he sat,
And soon after that,
He buried his clothes. What a pity!

RIDDLES

What has four eyes, runs, but never cries?
(The Mississippi River)

Why does a bird on a fence remind you of a dime?
(Head's on one side; tail's on the other.)

TONGUE TWISTER

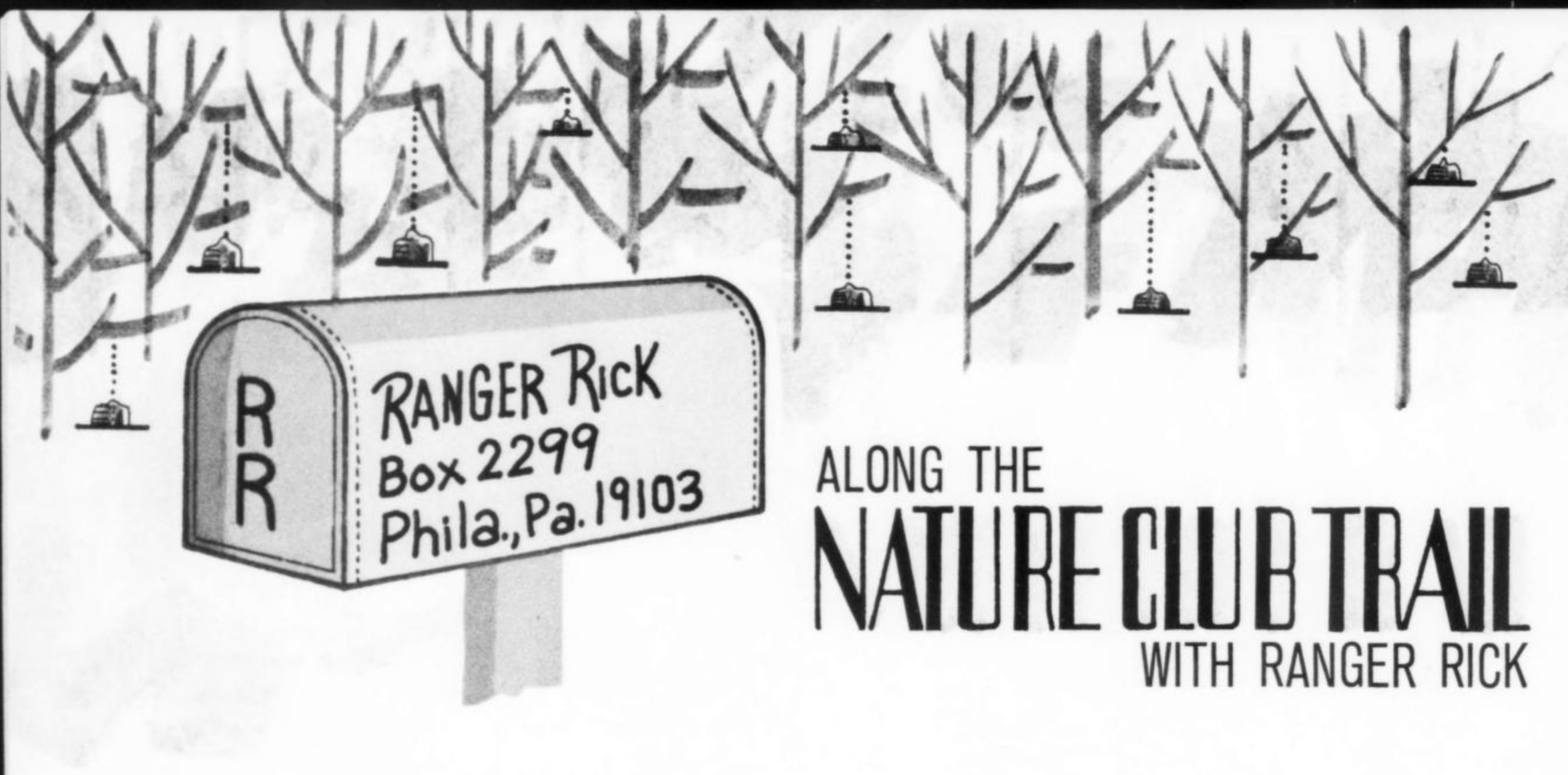
Six slippery salamanders slithered silently to Sycamore Creek.

The Egg-in-the-Bottle Mystery

Would you like to puzzle your friends at your March club meeting? Or astound your family on Easter morning? A fat egg inside a narrow-necked bottle will do it and it will seem as if only the Easter Bunny himself could have put it in there.

YOU can do it, though. Here's the secret! When eggs are soaked in vinegar for about a week, the shells are softened. They become almost like rubber and then you can pull them into a shape like a hot dog.

Choose a pretty bottle that has a neck much smaller than the width of the egg. Fill it almost full with water. Very carefully pull the vinegar-soaked egg into a long shape, narrow enough to go through the neck opening. After the egg is in, pour the water out of the bottle and the egg will return to its oval shape. Cap the bottle with shiny aluminum foil. Write a card that says, "E. Bunny was here!" and tie it to the bottle with a pretty ribbon.



ALONG THE NATURE CLUB TRAIL WITH RANGER RICK

Dear Rangers:

Did you know that from March 19th to the 25th is NATIONAL WILDLIFE WEEK? The motto is "This Is Your Land." You may ask what that has to do with animals. So did I when I heard about it. Here's how I found the answer.

The night after the Great Flood (see Page 26), I went to Ranger Tom's headquarters to tell him we had put the sandbags he gave us to good use. There was a dim light inside, so I climbed the tree by his window and looked in.

Ranger Tom was doing something with a black box that had a light in it. He was alone, but all of a sudden he said loudly, "LADIES AND GENTLEMEN!" I almost fell off the branch, but I managed to tap on his window. Tom let me in.

Because of special magic in Deep Green Wood, Ranger Tom and I can understand each other. I asked him why he was talking to himself.

He laughed. "Just practicing. The Bigtown Civic Club asked me to speak at a program for National Wildlife Week. I think pictures speak louder than words, so I am going to show some pictures of the State and National Parks and Forests and Wildlife Refuges. These are public lands. This means they are owned by all the people."

"Do all the people own Deep Green Wood?" I asked.

"Most of Deep Green Wood is in our State Park," Tom said. "The people own that part. They have given me the job of caring for it and watching over you and your friends."

That is when I began to see that public lands DO have something to do with the welfare of wildlife. But I thought about the flood that had almost destroyed our homes because the burned-over hill above Clear Creek had been left bare.

I talked to Tom about the flood and then asked, "Why didn't the people get you to replant the hillside right after the fire?"

"I've been worried about that hill for a long time," said Tom sadly. "But that side of Deep Green Wood is not a part of our State Park. It is on a private farm. I hope the farmer who owns it will be at the meeting, because I'm going to tell what can happen when land is not properly managed. Then I'll show how trees are replanted and wildlife protected on the public lands we all own."

Tom grinned. "I'll practice my talk on you, Rick! Now for the pictures."

Well, Rangers, it was better than riding a magic carpet! I saw redwood trees taller than you would believe. Tom told me they are among the oldest living things on earth. I saw flocks of beautiful waterbirds near marshes that will never be drained because they are on public land. I saw herds of pronghorns (like the ones on Page 4) running free across wide plains. I saw people skiing down white mountain slopes and swimming in blue lakes. I saw the ocean rolling in on clean wide beaches, and I saw forest trails where people could find a world free of smoke and traffic jams, and where large and small animals had homes.

When it was over, I said, "Aren't Bigtown people too busy to go to some of these places that are far away?"

"They have vacations, Rick. The thing is, many people don't know the variety of land of which they are part owners. It comes to more than a third of our whole, wide, wonderful country. And not all of it is far away. Bigtown Park is public land."

"Sammy Squirrel goes there sometimes," I said. "He shows off his climbing and jumping; then people feed him peanuts."

"School grounds are public lands too," added Tom. "And that reminds me! There is an unusable slope at the edge of the playground that is beginning to wash away. At the meeting I can plant the idea—then maybe the slope will get planted too!"

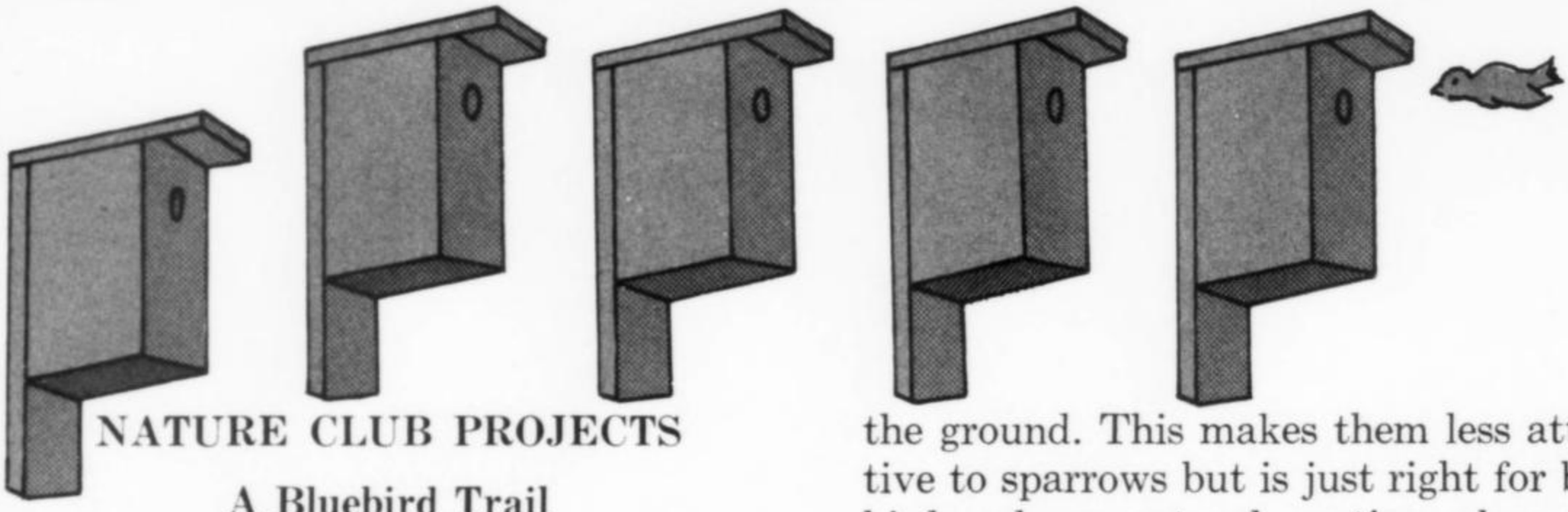
"Try to plan it so that the children can help," I said. "Then they will take good care of it later."

"Thanks, Rick," said Tom. "I think you have given me the punch line for my talk. How's this? WHEN WE USE AND CARE FOR THE LAND WE SHARE, IT IS TRULY OURS."

Picture by Luther Goldman Courtesy U.S. Fish and Wildlife Service

Please turn the page

Sacramento National Wildlife Refuge in Southern California, on the Pacific flyway, shelters two million ducks and geese at the peak of the wintering season. Clouds of waterfowl rising against a sunset is a sight never to be forgotten.



NATURE CLUB PROJECTS

A Bluebird Trail

Using the birdhouse design on Page 9, you can lend a hand to one of our most beautiful songbirds. The bluebird's bright feathers and sweet, soft warble are signs of the coming of spring while trees and fields are still winter-bare.

Once the "Bluebird of Happiness" was among the most common and welcome "bird neighbors" in suburban gardens, country yards and even city parks. Bluebirds live in the whole eastern half of our country from Canada to the Gulf of Mexico. Bluebirds in the North winter in the Southern and Gulf states. The southern birds sometimes go as far as Bermuda and the West Indies for the winter.

Returning in mid-March to their northern nesting places, these gentle birds meet increasing numbers of English sparrows and starlings that have taken over their homes in their absence.

To help solve the bluebirds' housing problem, many 4-H Clubs and scout troops in places as far apart as Wisconsin and New Jersey have been making *Bluebird Trails*. The boys and girls get together and build ten or more bluebird houses. They put them up along country roads and between fields, and in parks and suburban yards. Since bluebird families will not nest close to one another the club members space the houses at least 500 feet apart. They make the entrance holes no bigger than 1½ inches, which is too tight a squeeze for starlings. Also, they put them no higher than 4 or 5 feet from the ground. This makes them less attractive to sparrows but is just right for bluebirds, whose natural nesting places are often knotholes in fenceposts.

Banquets for Hummingbirds

A way to be sure you will see the tiny, jewellike hummingbird (Page 22) in person is to make some very special feeding bottles. Collect narrow bottles about 2 inches long. Wrap them with red ribbon or waterproof red tape. (Hummingbirds like red so much they have been known to hover above a man's red sunburned nose!) In a pitcher mix 1 cup of sugar and 2 cups of water. Pour the mixture into the feeding bottles. This may be as needed. Bottles may be tied to twigs on bushes, fastened to wire strung between trees, or attached to tall garden stakes and stuck into a grassy lawn or a flowerbed.

Nature Hobby News and Tips

As a member of Ranger Rick's Nature Club, you can do a good deed by sharing news about your nature hobbies with boys and girls across the land. If your hobby has to do with photography, writing or drawing, send samples of your work. If you are a collector or like nature crafts, write a letter about it. How did you get started and why is your hobby fun? I would like to make NATURE HOBBY NEWS AND TIPS a regular feature of the Nature Club Trail pages. Be sure to give your name, age and address. MY ADDRESS is on my mailbox at the top of Page 36.

WHO-O-O KNOWS

by Wise Old Owl

Question Box

I saw a bird with a metal band on its leg. How did it get there, and why?

—Tommy Radzai, Pennsylvania

Thousands of scientists and bird-lovers are licensed to band birds. The bands are light and do not hurt the birds. Each one has a different number on it. This number, the kind of bird banded and the date and place go to the United States Fish and Wildlife Service. Any further reports about each bird are added to the record.

Never try to catch a bird with a band on its leg. But if you find a dead bird with a leg band you should send the band to the Migratory Bird Populations Station, U.S. Bureau of Sport Fisheries and Wildlife, Laurel, Maryland 20810. Fasten the band to thin cardboard. Write the date and place where you found it. Give your name, age and address. You will get a letter telling where and when and by whom the bird was banded. About a million bands have been reported and each adds to our knowledge of where and how far birds fly. See the Flyway Map and story on Page 24.

FIND THE ANIMALS

In each sentence an animal is hidden in the letters. The first sentence shows how to find one animal. Can you find the others?

1. That is a d*rab bit* of cloth. (RABBIT)
2. I am in kindergarten. — — — —
3. We need firewood, Chuck.
   — — — — — — — — — —
4. Can you climb a tree? — — —
5. He cannot terrify me. — — — — —
6. She wants to be artistic. — — — —
7. Accidents can be averted.
   — — — — — — —
8. Do not ask unkind questions.
   — — — — —
9. Ali once owned a lamp. — — — —
10. He made errors in spelling. — — — —

ANSWERS:

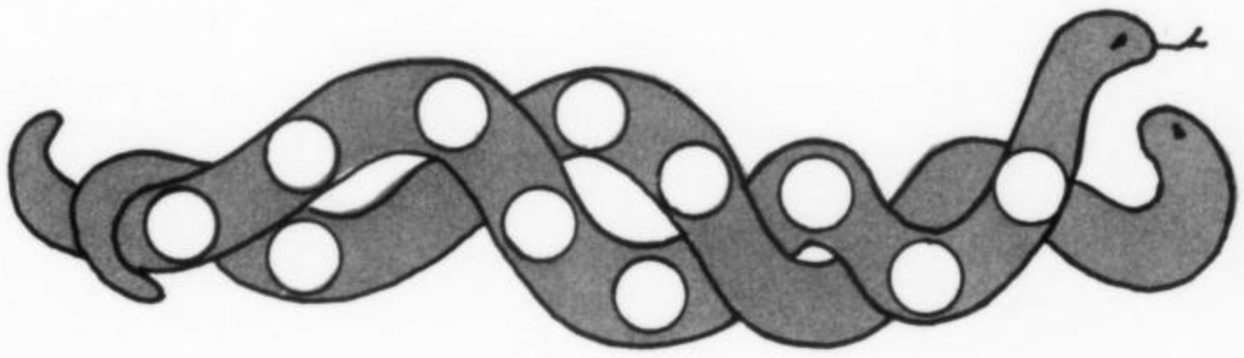
2. Mink 3. Woodchuck 4. Bat 5. Otter 6. Bear
7. Beaver 8. Skunk 9. Lion 10. Deer

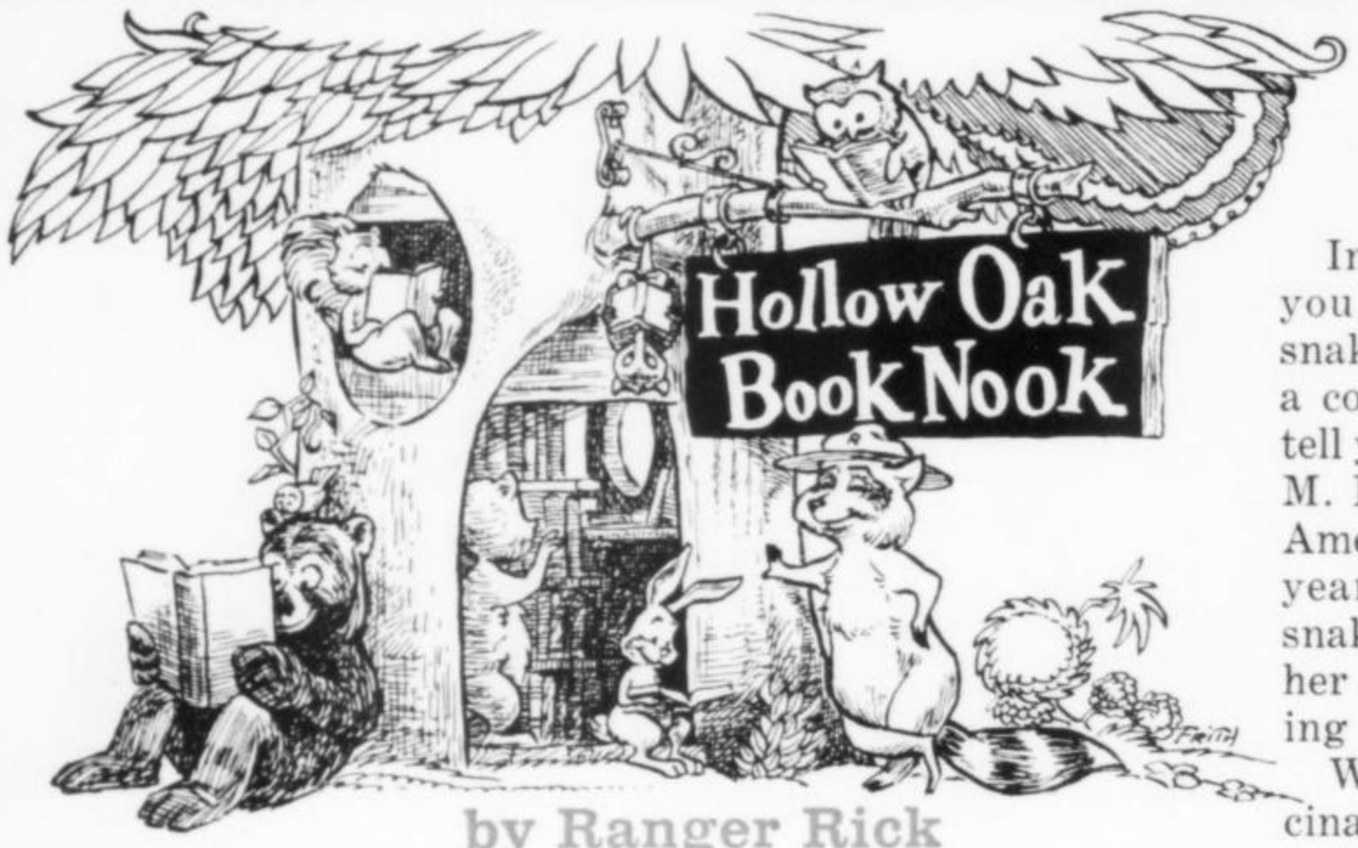
ST. PATTY'S DAY PUZZLE

Two snakes, born on March 17, were given these names:

1. A green, three-leaved plant that makes us think of Ireland.
   S — — — — — — — —
2. Ireland's patron saint.
   P — — — — — — —

Together these two names have 15 letters. Can you fit them into the 11 spots in the picture so both names are spelled out?





by Ranger Rick

Dear Member:

Were you interested by the articles in this issue on birds, snakes, and elephants? If so, you'll be sure to like the books described below. They're the latest entries in our Hollow Oak Book Nook collection, and the animals in our Ranger Patrol have been so hungry to read them that we can hardly keep them in our library. You can get them by using the order form attached to this page.

If you've read through this issue carefully, you've learned how to build a bird house that will attract bird friends so you can watch and study them. But did you know that there is a kind of bird that actually builds his own house, complete with roof, rooms, and even a front porch? The bird is the blue satin bowerbird who lives in New Guinea. The bowerbird builds his house of twigs, sometimes as high as 6 feet tall! And he even decorates it with berries, stones, shells, and fresh flowers. Most amazing of all, he paints the inside of his house blue using a piece of bark as a paint brush and berry juice as paint.

You can read about the bowerbird, and many other unusual and marvelous birds in *Birds Do The Strangest Things* by Leonora and Arthur Hornblow, illustrations by Michael K. Frith.

More About Snakes...

Rare indeed is the person who doesn't jump when he comes suddenly upon a snake – and is it surprising? Some snakes *are* dangerous and have to be looked out for. But most snakes are harmless, while a great many are even useful.

In the article about the legend of St. Patrick, you learned a lot of interesting facts about snakes. Now, from the Book Nook, you can get a copy of ALL ABOUT SNAKES, which will tell you much, much more. It's written by Bessie M. Hecht, who specialized in reptiles at the American Museum of Natural History for many years. Bessie Hecht has always been fond of snakes, believe it or not, and her stories about her experiences with them make up an interesting part of the book.

What better person to write about the fascinating world of snakes? Here's a truly different book you won't want to miss.

A Fascinating Animal

"Our Guest From Another Land" this issue is the elephant, a beast who has always been especially fascinating to mankind. *All About Elephants* by Carl Burger is a fine book, which, with the aid of drawings and photographs, will teach you hundreds of amazing facts about this unusual animal. What manner of life does the elephant lead as a freely roaming wild animal? How is it captured and trained to be a beast of burden? What "jobs" other than hard labor are open to those elephants that become the servants of man? You'll find the answers here.

How Do Animals Move About?

Last but not least for this month comes *Wings, Legs or Fins,* a delightful book that tells how animals get from one place to another.

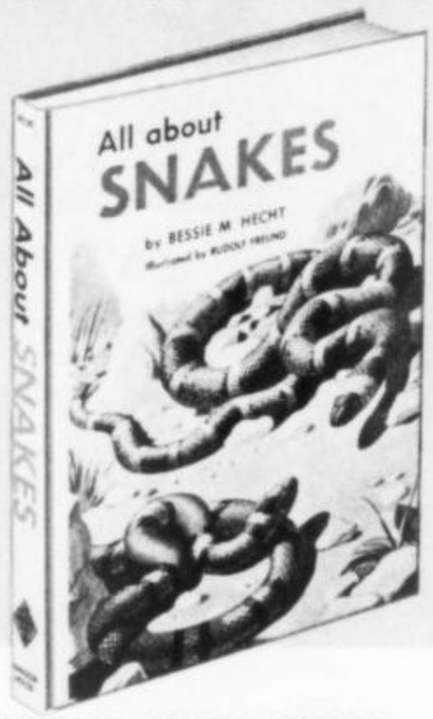
With exciting photographs and drawings, naturalist Henry B. Kane, who wrote *Tale of A Wood* and *Tale of A Meadow,* shows some of the many different ways that animals can travel.

"Lie on your stomach on the grass in summer," says Mr. Kane. "Watch a caterpillar humping along. It reaches out to pull itself from one blade to another. Over there, a tiny ant pulls a dead insect three times its size through the grass jungle. Roll over and watch a bird fly high across the sky. At the edge of nearby woods, a squirrel races up the trunk of the tree. Fish swim. Grasshoppers leap. Snakes crawl. Birds fly. Men walk. The creatures of the world have found ways of moving about – of getting from here to there."

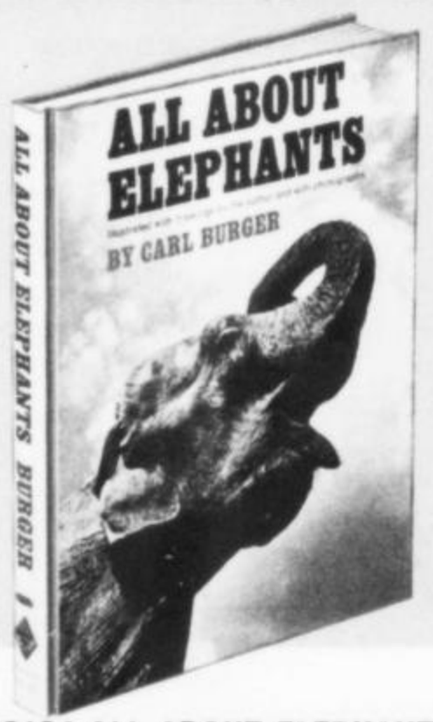
Best, RANGER RICK

Hollow Oak Book Nook Selections for March

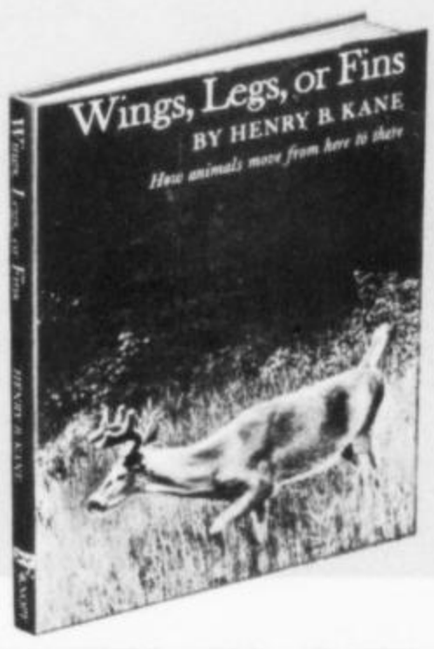
62088 BIRDS DO THE STRANGEST THINGS
by Leonora and Arthur Hornblow.
Illustrated by Michael K. Frith.
(Pub. Ed. $1.95) **$1.60**



62097 ALL ABOUT SNAKES
by Bessie M. Hecht.
Illustrated by Rudolph Freund.
An "Allabout Book"
for ages 8 and up.
(Pub. Ed. $1.95) **$1.60**



62104 ALL ABOUT ELEPHANTS
by Carl Burger,
Illustrated with drawings and photographs by the author.
An "Allabout Book" for ages 9 and up.
(Pub. Ed. $1.95) **$1.60**



62113 WINGS, LEGS, OR FINS
by Henry B. Kane.
For ages 5 through 8.
(Pub. Ed. $3.25) **$2.60**

IMPORTANT! The publisher's original price is enclosed within parentheses and your member's price is in bold face numerals. Example: (Pub. Ed. $5.95) **$4.75**

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1412 Sixteenth Street N.W., Washington, D. C. 20036

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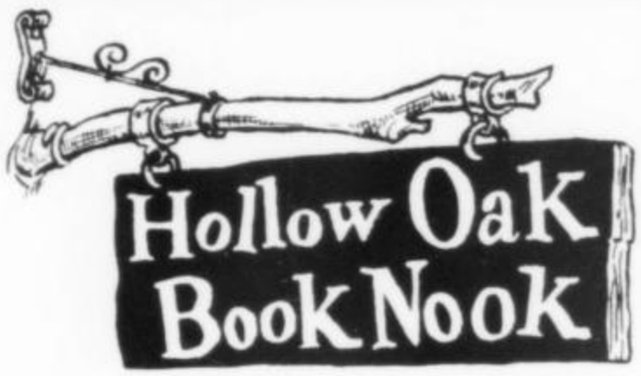


SAVINGS OF OVER 20%

HERE'S HOW TO ORDER YOUR BOOKS: All these National Wildlife Books are in the original publishers' editions, beautifully made and bound. In each issue of Ranger Rick's Nature Magazine, we'll bring you other fine new books, at equally attractive savings. Please always use your Ranger Rick's Nature Club Membership number when ordering. We are sorry, but we cannot sell these books at specially reduced prices to anyone who is not a member.

Please address all inquiries to: **Hollow Oak Book Nook**
c/o Ranger Rick's Nature Magazine
1412 Sixteenth Street, N.W.,
Washington, D.C. 20036

Dear Member:
Please ask your parents to assist you in completing this form and preparing your payment.

A Ride With the Wind

—Margo Duryeá

I talked to the wind,
And the wind talked to me.
I said, "I have one wish.
The sky to see."

The wind said, "Let's go
Where the snowflakes are.
We might even see
Where they keep that star!"

So off we went
Flying through the air,
Up above the clouds
With the wind in my hair.

Whee-e-e-e, what fun
To go soaring like this!
I never dreamed
I would get my wish.

As we flew through the sky,
We saw all kinds of things.
The snowflakes greeted us,
And the stars looked like kings.

So this is the place
Where the weather is made.
And this is where
The planets fade.

Look over here
At the Milky Way.
Gee, I'm so glad
We went flying today.

But I think we'd better
Get started back
Or I might be missed,
As a matter of fact.

As we rode a snowflake
Back to the ground,
I thought of its changing
Without making a sound.

It becomes the water
For the thirsty plants
That feed you and me
And even the ants!

"Oh, such a fun trip,"
The wind and I said.
But then I woke up
And was home in my bed!

Picture by Marion Broida

GUESTS

The largest land animals in the world live in the deep, green jungles of Africa. These are elephants like the ones in this picture which live in Amboseli Park in Kenya. Others live in India and Ceylon.

They travel together in herds with the oldest elephant as their leader. Little white birds travel with the herd. These are cattle egrets and they feed on the insects that the elephants stir up when they are grazing. Sometimes the egrets take a ride on the elephants' backs or walk boldly between their big feet. The elephants don't seem to mind at all.

Everything about the elephant seems BIG. In addition to his four large feet, he has two long ivory teeth, or tusks and enormous ears. Some elephants grow as tall as 12 feet and weigh 14,000 pounds. That's as much as 85 men weighed together.

The most useful part of the elephant is his trunk. At the end of it are two knobs that are used like fingers. His trunk can pick up a small peanut or a huge 600-pound log. It is useful for many other things too. With it, he digs food, fights other animals, smells, sucks water and sprays it into his mouth or over his back to give himself a shower bath. With his trunk he reaches up high into the trees in

FROM A FOREIGN LAND

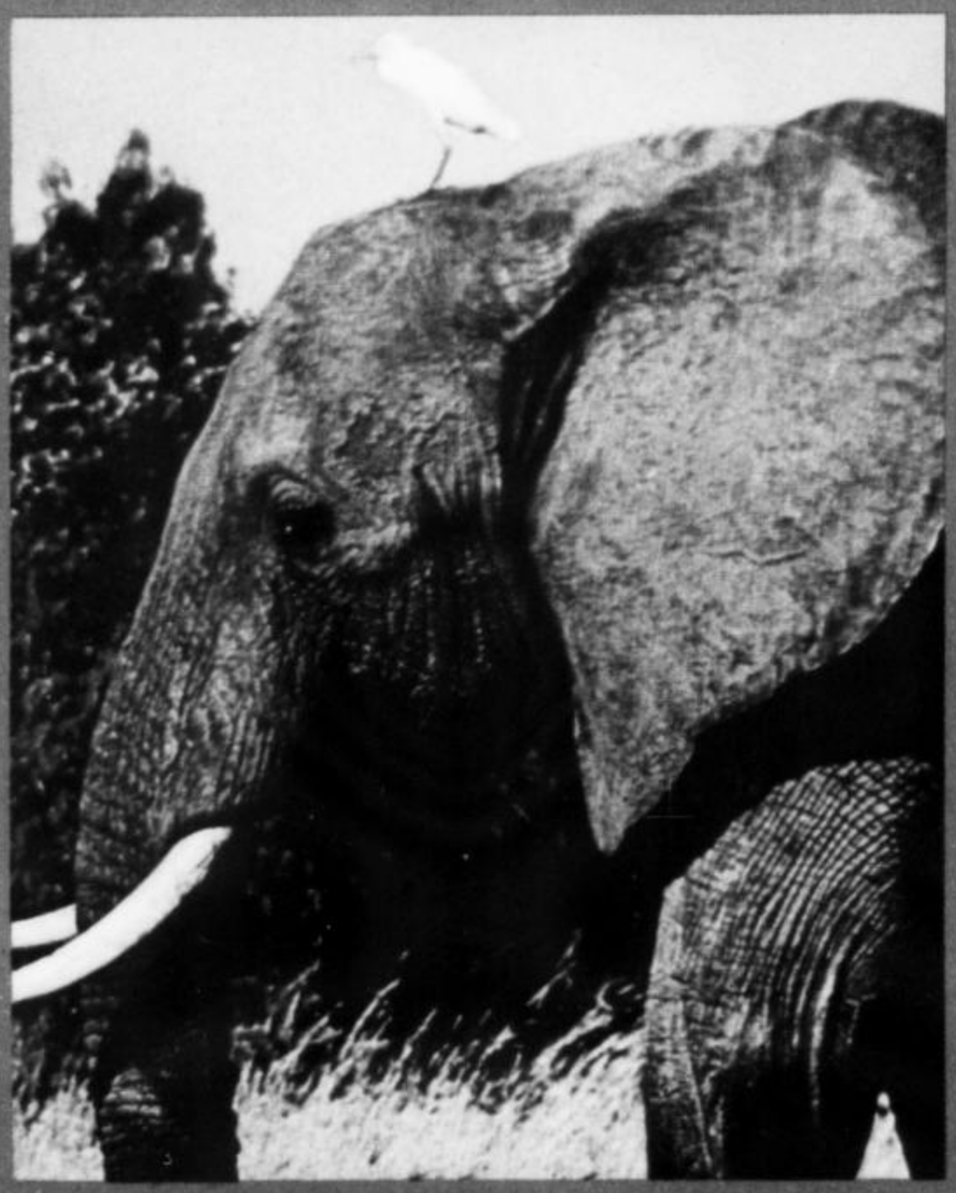
search of tender green leaves of the thorn tree.

He also likes to eat branches, bushes, grass and wild fruits. Especially bananas! Imagine: to feed the elephant's large body, he must eat about 600 pounds of food daily and drink 30 to 50 gallons of water!

An elephant is a very smart animal. He seldom forgets the scent of a man who has hurt him in some way and will return harm when next they cross paths. If one does get hurt, the others bring him food and take good care of him until he is well enough to lift to his feet with their trunks. Elephants are very kind to one another.

THE END

Pictures by George Dineen
Photo Researchers, Inc.



Picture by Russ Kinne Photo Researchers, Inc.

MR. SHADE TAIL

by Ryan B. Walden

Oh! Excuse me, you caught me napping. The sun was so warm, and I have been so busy since early morning, I just could not keep my eyes open. My name is Mr. Shade Tail and I am a gray squirrel. You certainly have sharp eyes to see me lying here on my favorite branch.

You have a puzzled look on your face. Are you wondering about my name? My scientific name is *Sciurus*, which means "shade-tailed," and it describes one of the ways I use my magnificent, thick, bushy tail. It makes a very good sunshade when I bend it over my back. When I have an argument with Mr. Blue Jay or Mrs. House Cat, I emphasize my sharp, raspy barks with violent jerks of my tail.

My tail is very important to me in other ways. When I jump from one branch to another, I use it to keep my balance. Other times I flatten myself out on a thin branch when an enemy is near, and my tail helps to keep me from falling. You see, my life often depends on the way I use my tail.

My coat is gray and my vest is white. Some of my brothers and sisters have black coats and others have white ones. I was two years old before I reached my full growth and now I weigh $1\frac{1}{2}$ pounds and am 18 inches long. My fine, bushy tail makes up almost half of my length.

Many of my brothers and sisters live in the big woods out in the country, but I enjoy living in the park. Boys and girls come to play here and sometimes they bring peanuts for me. They like to watch me run up the tree to hide the nuts in my secret hiding place. People don't know

that I have as much fun watching them as they do watching me.

Last fall I had to spend a great deal of my time collecting berries and nuts to store for the long winter. Sometimes when I wanted a change during the winter, I would go out to dinner across the street. The people who live over there put out sunflower seeds and peanut butter for me.

I am very happy that spring is on its way, because it means many new things to eat. People will soon be having picnics. Then I will be able to find cookies, peanuts and marshmallows to nibble on. Spring also brings mushrooms and newly budding tree leaves which I enjoy as much as you like fresh garden vegetables. As the weather becomes even warmer, I will be able to find many large insects which are also a welcome change in my diet.

See that ball of leaves high up in my oak tree? That is my summer nest. It is 12 inches from floor to ceiling and 16 inches across. I made the platform of my nest by packing twigs and fresh leaves close together. I used moss and grass and more leaves to make the sides and top. The roof is so strong that winds cannot blow it out of the tree. If you were to measure the distance from my door to the ground, you might find my apartment to be 50 feet in the air.

There is an old woodpecker hole near the top of the big maple tree across the street. A mother squirrel lives there with her five new babies. It will be almost two months before they are big enough to leave their nest. By the time they are old enough to come out and play, the sunshine will be nice and warm.

It has been very nice chattering with you, but I must go now. I have been invited to a birthday party for Grandma squirrel; she is ten years old today, and that is quite old even for a city squirrel. Please stop and talk to me again; it has been very pleasant meeting someone who didn't think that I was just another gray squirrel.

THE END

Drawing by Jim Woodend

Let's Talk It Over

What Do You Know About The Wind? When you read this story on Page 14, did it remind you of something you read or experienced recently, or long ago? It reminded me of a poem I learned when I was a little girl, and even today I still continue to enjoy it. Here it is:

The Moon's the North Wind's Cooky.
He bites it, day by day,
Until there's but a rim of scraps
That crumble all away.

The South Wind is a baker.
He kneads clouds in his den.
And bakes a crisp new moon that—greedy
North—Wind—eats—again!

-Vachel Lindsay

I usually think of this poem when I hear the wind blowing or feel it hitting my face.

The wind can be destructive. We know that sometimes it tears large branches from trees, rips roofs from buildings, and stirs up very big waves in the lake. Were you surprised to learn that the wind also protects us from the hot rays of the sun?

When you learned from the story that the wind is moving air, it became easier to understand what makes the tree branches move and what pushes the clouds in the sky.

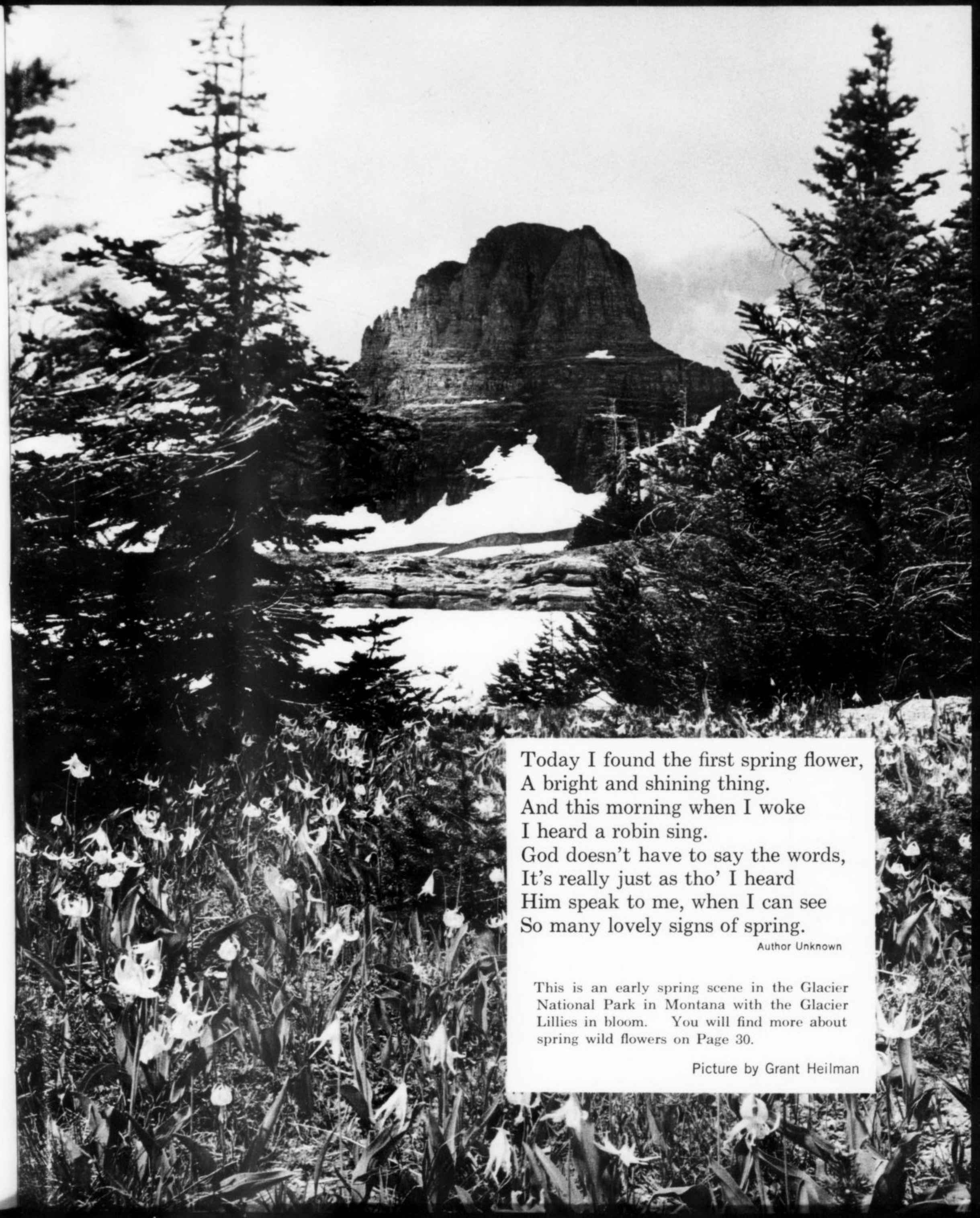
Before, when you heard the weather report on radio and television, or read it in the newspaper, did you know that the weatherman was reporting the work of the sun and the wind? The sun and the wind together are the weather-maker, and the speed of the wind also tells us how fast the weather will change.

Would you like to be a weatherman? Another name for him is "meteorologist," which means one who specializes in the study of weather. To understand the weather and report it, you would need a barometer to measure the weight of the air. Also, you would want an anemometer to measure the speed of the wind. The directions for making both of these are in the story What Do You Know About The Wind? It would be interesting to make these at home or in school, and then share your findings with the other children.

Because the wind can do such a variety of things it is fun to write stories and poems about it. They can be real or fanciful, and the illustrations may be made with crayons, paint, yarn, cloth or with almost anything you have.

One of these days when you have the time, please make a picture or write a story about the wind and send it to Ranger Rick's Nature Magazine. His address is on Page 36 and he will see that I get it.

Miss Frances

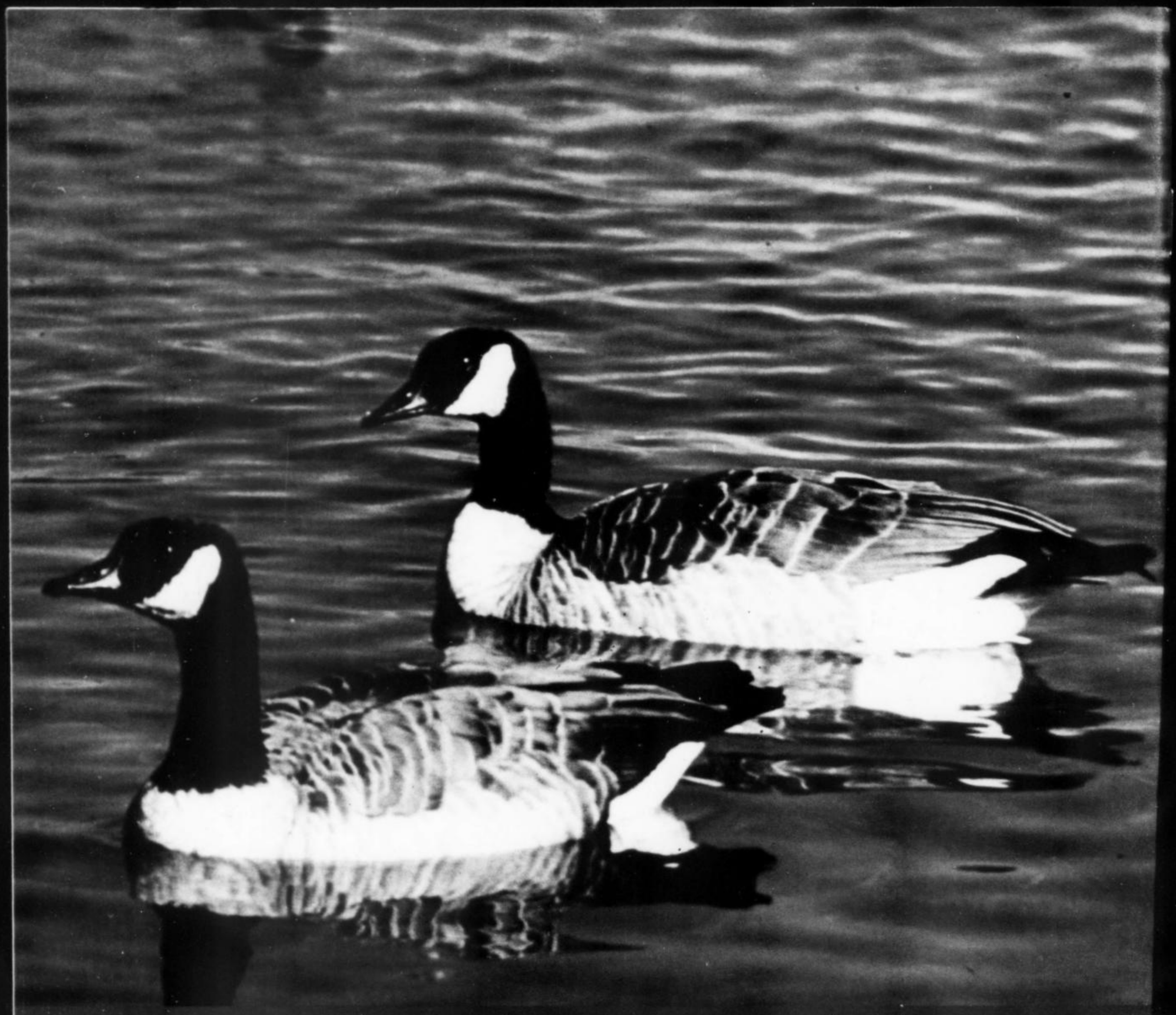


Today I found the first spring flower,
A bright and shining thing.
And this morning when I woke
I heard a robin sing.
God doesn't have to say the words,
It's really just as tho' I heard
Him speak to me, when I can see
So many lovely signs of spring.

Author Unknown

This is an early spring scene in the Glacier National Park in Montana with the Glacier Lillies in bloom. You will find more about spring wild flowers on Page 30.

Picture by Grant Heilman



A pair of Canada geese are seen here at the Malheur National Wildlife Refuge in Oregon where they will nest and raise their young. Many other ducks and geese find a safe resting place here during migration. On Page 22 you can read more about birds which make the long migratory flight each spring and fall. You will also find a story about our use of public lands for wildlife refuges and other purposes on Page 36.

Picture by David Marshall
Courtesy U.S. Fish and Wildlife Service